OBSERVATIONS UPON Military & Political AFFAIRS.

Written by the

MOST HONOURABLE

GEORGE

Duke of Albemarle, &c.

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TO THE
MOST SACRED MAJESTY
OF
Charles the II.
By the Grace of God
King of *Great Britain*, *France*, and *Ireland*, &c.

DREAD SOVEREIGN,

THIS *Book humbly addresseth it self unto Your Royal Patronage, upon Accompt both of the* Work, *and the* Author. *Mines*

of Gold and Silver bear a Value, which appropriates them to the Crown, whereſoever they be found. Here is a Treatiſe of Warfare and State-Policy, brought Ex umbra in Solem; *and bearing a ſpecial reference to your Sovereign Majeſty, from whom both the* Sword, *and the* Gown *derive their lawful Power and Authority.*

The great Inſtrument *of Your Majeſty's* MOST MEMORABLE RESTAURATION *fitly appeareth* Author *of this* ΕΙΚΩΝ ΗΓΕΜΟΝΙΚΗ. *Wherein he hath left his Important* Obſervations, *for preparing others after him to ſerve Your Majeſty* Domi Militiæque.

Singular Succeſs following long Exerciſe

erciſe in Martial Offices Advanced this Perſon: That it may reaſonably be doubted of him, Fortiorne an felicior eſſet. Valour *and* Sufferance *he is pleaſed to call the two Chief Parts of a Souldier. Both theſe ſignally concurring in himſelf, were wrought up at length to that juſt Compoſition,* Imperator bonus, idemque robuſtus miles. *Neither may I omit, that in fighting he came neareſt the way of the Antient Romans,* Preſſo gradu, ac ſtabili pugna cominus rem gerere.

And when he had leaſure from Arms, *his* Pen *was buſied in Compiling this* Platform of Military Conduct, *being a Collection of his Reading and Experience together. It was written five and twenty years ſince,*

and

and ſent from the Author then Priſoner in the Tower, *unto the Lord Viſcount* Liſle. *So that it will admit almoſt the ſame Epilogue, that* Ammianus Marcellinus *makes to his Hiſtory,* Hæc ut miles quondam——Pro virium explicavi menſura, *&c.*

After the Duke of Albemarle's *Deceaſe, I had the Honour to be Publiſher of his Manuſcript, conferr'd upon me by the Favour of my Lord* Liſle. *In whoſe hands it hath been faithfully preſerved, as a true* Picture *of the Author drawn by himſelf: whereof let me only ſay,* Ex pede Herculem. *And ſo I leave him* Inter Ingentes Bellorum Animas.

God Almighty multiply his Manifold Bleſſings upon Your Majeſty's

Royal

Royal Perſon, Family, and Government, unto the attaining of all Happineſs; which is the fervent Prayer of

Your Sacred Majeſties

Moſt Humble, Loyal,

and Obedient Subject,

JOHN HEATH.

ERRA-

ERRATA.

PAge 13. Line 15. dele *the*, p. 28. l. 2. for *ſt.* r. *ſtit*, p. 33. l. 4. r. *ſet down*, p. 48. l. 5. r. *Carthrages*, p. 69. l. 1. dele *Kt. Kt.* p. 114. l. 3. for *poſſeſſed* r. *preſſed*, p. 116. & 117. for *Circumvolation* r. *Circumvallation*, toties quoties. p. 127. l. 27. after *with them*, make a period.

OBSERVATIONS UPON Military & Political AFFAIRS.

Chap. I.

Some Obſervations concerning a Souldiers Profeßion and his Duty.

THE Profeſſion of a Souldier is allowed to be lawful by the Word of God; and ſo Famous and Honourable amongſt Men, that Emperours and Kings do account it a great honour to be of the Profeſſion, and to have experience in it; and next under God, the Profeſſion of a Souldier doth rule or over-rule the greateſt part

of the World. He that chooſeth the Profeſſion of a Souldier, ought to know withal, Honour muſt be his greateſt wages, and his Enemy his ſureſt Pay-maſter.

There are two things that cauſe men to be deſirous of this Profeſſion; the firſt is, Emulation of Honour; the next is, the hopes they have by Licence to do Evil. As the aims of the firſt are Virtuous, ſo will they do good ſervice: the other by ſtrict Diſcipline, may be brought to do good Service, and to be obedient Souldiers; but if that Diſcipline be neglected, then they prove the ruine of an Army.

Let a Souldiers Reſolution be never ſo great, and his Courage invincible in the day of Battel, yet if he faint under the burthen of ſuch tedioufneſs as uſually attendeth upon warlike deſignments, he is no way fit for enterpriſe: becauſe the two chief parts of a Souldier are *Valour* and *Sufferance*; and there is as much Honour gained by ſuffering Wants patiently in the War, as by fighting Valiantly; and as great Atchievements effected by the one, as by the other. It is no virtue, but a weakneſs of the mind, not to be able to endure want a little while: and yet it is an eaſier matter to find men that will offer themſelves willingly to Death, than ſuch as will endure Labour with patience.

The greateſt virtue which is required in a Souldier is Obedience, as a thing wherein the force of all Diſcipline conſiſteth.

A Souldier muſt be always ready to confront extremity of Danger, with extremity of Valour, and overtop fury with an higher reſolution.

A Souldier ſhould always reſpect courſes of Honour, and the Publick good, above his own ſafety: and ought to fear nothing but God and Diſhonour. Let every

every Souldier arm his mind with hopes, and put on Courage: whatſoever diſaſter falleth, let not his heart ſink. The paſſage of Providence lieth through many crooked ways. A deſpairing heart, is the true Prophet of approaching evil.

CHAP. II.

Some Obſervations upon War, which is the Profeſſion of a Souldier.

PEace, Fulneſs, Pride, and War, are the four Fellies, which being let into one another, make the Wheel, that the Times turn on; and after a long Scene of Peace, War ever entreth the Stage.

The cauſes of all Wars may be reduced to ſix heads; Ambition, Avarice, Religion, Revenge, Providence, and Defence.

War, the Profeſſion of a Souldier, is that of all others, which as it conferreth moſt Honour upon a man who therein acquitteth himſelf well; ſo it draweth the greateſt infamy upon him who demeaneth himſelf ill. For one fault committed can never be repaired, and one hour cauſeth the loſs of that reputation, which hath been thirty years acquiring.

In matter of War, there is ſuch a medly, and interlacing of material circumſtances with the body of the action, that commonly one buſineſs begetteth another. No Science, or Faculty whatſoever in multitude of parts may any way be comparable to the Art.

Military; wherein every ſmall, and unreſpected circumſtance quite altereth the nature of the Action, and amongſt the variable events of War, many unexpected occaſions ariſe, which give preſent Victory to him that is ready to take it: and many ſtrange chances ſo alter the courſe of things, that no foreſight can diſcern what may happen.

War beginneth when one party liſteth, but it endeth when the adverſe party pleaſeth.

War is in the ſame nature with Offences, *Neceſſe eſt ut veniant*, they muſt be, but they are mightily in fault that cauſe them.

Yet in thoſe Wars whoſe ends are to defend your own Poſſeſſions, or to recover them being loſt, or where Neceſſity ſtriketh up her hard Alarms, or wronged Religion beateth her zealous Marches, go on and proſper.

CHAP. III.

Some Obſervations of an Offenſive War, and Conquering of Countries.

AN Offenſive War will keep you from Civil War at home, and make you feared of your Enemies, and beloved of your Friends, and keepeth your Gentry, and Commons from lazineſs, and all ſorts of Luxury. But here you muſt note, to entertain a Forein War, is not good to be obſerved, but by ſuch Kingdoms and States that are able to go thorough with their Deſigns they undertake. Becauſe

as a Foreign War is neceſſary for Rich and Potent Kingdoms and States; ſo it is hurtful to Petty Kingdoms and States: for being too weak to gain by it, they will in the end, but loſe their deſign, their Honours, and Monies, and impoveriſh themſelves, and increaſe their Enemies. It is not for Kings and States to undertake a troubleſome and dangerous War upon an humour, or any other ſlender motion: but diligently weighing the circumſtances thereof, and meaſuring the peril and hazard with the good conſequents, to inform their Judgments of the Action, and ſo try whether the Benefit would anſwer their Labour. They ought likewiſe to be well informed of the greatneſs and riches of the Countrey, the quality and ſtrength of the People, their uſe of War, and the opportunity of their Havens. And he that maketh an Offenſive War, muſt ſo proceed therewith, that he be ſure to keep what he getteth, and to enrich, not impoveriſh his own Countrey. For he that doth increaſe his Dominions, and yet groweth not in Strength, muſt needs go to wrack. Now thoſe grow not ſtrong who grow poor in the Wars, although they prove Victorious: becauſe their Conqueſts do coſt them more than they get by them. This errour many run into by not knowing how to limit their hopes; and ſo grounded on their own vaſt conceits, without weighing their ſtrength, they are utterly ruined. For Conqueſts, not having Power anſwerable to their Greatneſs, invite new Conquerours to the ruine of the old.

That Prince who putteth himſelf upon an Offenſive War, ought to be Maſter of his Enemy in Shiping, Purſe, and Men; or at leaſt in Shipping and Purſe: or elſe he muſt ſee ſome Garboils in the State which he aſſaileth. And he ought to be called thither

thither by a party; otherwiſe it would be a raſh Enterpriſe.

If you make any attempt upon any Forein Countrey, the firſt thing you ought to do, is to take ſome Sea-Town that hath a convenient Harbour, and that lieth neareſt the greateſt City in that Countrey, in which you make your War. This Town you ought to ſecure and harbour very well with good works: and take care that it be very well Victualled, before you advance further into the Countrey with your Army. So this Town will ſerve to keep your Proviſions for your Magazines: and being well provided of Victual, will ſerve upon occaſion to make good your retreat. For having once gotten poſſeſſion of a Sea-Town, and having well Fortified and Victualled the ſame, you have one foot on Land, and the other on Sea.

Having fortified a place for your Magazine, and your Retreat, advance with your Army unto the chief City in the Countrey. By which means you will ſoon force your Enemy to Battel; and if you win the Battel, and follow your Victory cloſe, you may gain the chief City of the Countrey, either by Compoſition, or Aſſault, if it be not Fortified; or before your Enemy be able to relieve it, you may be able to ſtarve it. But in caſe you do not prevail to be Maſter of the chief City, either by Compoſition, or Aſſault; then ought you ſtrongly to intrench two thouſand Foot, and five hundred Horſe in a Quarter: and ſo Fortifying one Quarter after another with your Army, until you have intrenched ſo many ſeveral Quarters, as you think may be ſufficient to keep the City from Proviſions. And then, if you think fit, you may run Lines from one Quarter to another. And having ſtrongly Intrenched that part of

of your Army that is quartered about the City, draw the reſt of your Army into a Body, and intrench them in ſome place near the Town, where you think it moſt convenient to meet with any Enemy, that may come to the relief of it. You ought likewiſe to uſe the beſt means you can for intelligence, and continually to ſend out Parties of Horſe ſeveral ways, that when any Enemy approacheth near you, you may be in a readineſs to fight with him. If you come to be Maſter of the Chief City of a Kingdom, or Country, I account that Kingdom, or Country more then half won.

The ſureſt way to keep that Country you Conquer in Obedience to you, will be to oppreſs them as little as may be (eſpecially at firſt) either in their Purſes, Conſciences, or Laws. He that obtaineth a Kingdom with the Rupture of his Faith, hath gained the Glory of a Conqueſt, but loſt the Honour of a Conquerour. But you ought to diſarm them, and take Pledges of them for their Obedience, the which muſt be kept in your own Country. You ought alſo to employ in your Garriſons all the Gun-Smiths, and all the Salt-petre-men that you find in the Country you have Conquered; and to take into your hands all the Powder and Brimſtone you find; and deſtroy all the Powder-Mills that are out of your own Garriſons.

When it ſhall happen that you are to Conquer a Country that doth afford Covert, and Protection to an Enemy, who is more malicious than valorous, and through the faſtneſs of the place refuſeth to ſhew himſelf, unleſs it be upon advantages; the War doubtleſs is likely to prove tedious, and the Victory leſs Honourable. In ſuch caſes there is no other way, than ſo to harraſs and waſte the Country, that the Enemy

Enemy may be famiſhed out of his Holds, and brought to ſubjection by ſcarcity, and neceſſity: which is a means ſo powerful as well to ſupplant the greateſt ſtrengths, as to meet with Subterfuges and Delays, that of it ſelf it ſubdueth all oppoſition, and needeth no other help for atchieving of Victory.

It is much better for a Prince to invade an Enemy in his own Country, than to attend him at home in his own Kingdom; if ſo be that he hath competent Forces to give him hopes of doing good upon his Enemy. For the ſeat of War is always miſerable.

CHAP. IV.

Some Obſervations upon a Defenſive WVar.

THE beſt way to prevent any attempts of any Foreign Enemy, is to be able and ready to reſiſt their Deſigns; and the beſt way to do that, is to have a good Rich Publick Treaſure before-hand, and your people continually well trained up in Martial Diſcipline.

When you foreſee that an Enemy is reſolved to ſet upon your Country to conquer it, and if your Enemy be ſo much Maſter of you at Sea, that you fear the ſhutting up of your Havens by his Shipping, then ought you to provide your Magazines extraordinarily well with Ammunition, Arms, and Salt, and great ſtore of Brimſtone, Salt-petre, and Salt-petremen, and to have Powder-Mills in all your Chief Towns

In the beginning of a Defenſive War, if you meet with

with a powerful Enemy, and foreſee that the War is likely to laſt long, then it will be wiſdom in you to entertain ſome Forein Nation: But you muſt be careful to entertain none of thoſe Nations who ſerve in your Enemies Army, unleſs they be ſuch as are of a contrary Religion to your Enemy; to the end that you may ſpare your own Nation as much as may be: Provided always you have mony to pay them punctually; otherwiſe they may prove dangerous to you. And I would wiſh you by no means to keep them longer than you have mony to pay them: for if you do, you will find they will prove more your Enemies than your Friends. Likewiſe you muſt be careful to entertain no more Strangers, than you are well able to Maſter; and that you Garriſon them not in any of your Sea-Towns, or Forts, or where your Chief Magazines are. And in what Towns you do Garriſon your Strangers in the Winter, where you place one Company of Strangers in a Garriſon, you ought to place two of your own Nation. It is a very dangerous thing to entertain a Forein Friend to gain your own Country: but there is no danger in entertaining a Forein Friend to help to keep your Country, ſo long as you have mony to pay them.

You may with good Fortreſſes, and a good Army ſo tye up your Enemy in hindring him from Victuals, and by intrenching always ſo near him, that you may now and then fall upon ſome of his Quarters, and ſo hinder him from making any Siege of importance. And when a Conquerour advanceth not forward, he recoileth. But here you muſt note, that ſuch places as you fortifie are to be well fortified, well manned, and well provided of all neceſſaries, and that you do not fortifie any place, which will require many men for the Defence of it in a Siege.

If you be aſſailed by a Power altogether diſproportionable to your Forces, and are in this caſe forced to leave ſome part of your Country to the Enemy, then you ought to burn all the Victual which you cannot contain wiehin your Fortreſſes, and alſo all the Towns and Villages which you cannot guard. For it is better to preſerve your ſelf in a ruined Country, than to keep it for your Enemy. It is a Maxim, That no publick good can be without ſome prejudice to ſome particular men: So a Prince cannot diſ-entangle himſelf from a perilous Enterpriſe, if he will pleaſe every man: and the greateſt and moſt uſual faults which we commit in matters of State, and War, proceed from ſuffering our ſelves to be carried away with this complacency, whereof we repent when there is no remedy left.

A Kingdom or State, though they have received many overthrows, ſhould never cowardly yield themſelves up to be Slaves to their Enemies, but endeavour to look Fortune again in the face, and to be ready to overcome or loſe more gloriouſly, or get honourable terms of Agreement. Becauſe by yielding they can hope for nothing but the ſaving of their lives, and it will be in their Enemies hands to deprive them of that at their pleaſures: and Peace is more grievous to men in ſubjection, than the War is to them that enjoy their liberties; and they are hopeful in their Arms, who have no other hope but in their Arms. A juſt Cauſe is good defence againſt a ſtrong Enemy.

CHAP. V.

Some Obſervations for thoſe that undertake a War.

A Sovereign Prince is more capable to make great and ready Conqueſts than a Commonwealth, and eſpecially if he goeth in perſon into the Field. For never any Prince hath founded a great Empire, but by making War in perſon: nor hath loſt any, but when he made War by his Lieutenants.

Thoſe that undertake a War, ought to make their Levies according to the War which they undertake; carefully foreſeeing that they undertake no Offenſive War, but ſuch as they be able to go through with their Purſes and their Honours: And if their Purſes will bear it, to make their Wars great and ſhort. It is an excellent property of a good and wiſe Prince to uſe War, as he doth Phyſick, carefully, unwillingly, and ſeaſonably; either to prevent approaching dangers, or to correct a preſent miſchief, or to recover a former loſs. He that declineth Phyſick till he is accoſted with the danger, or weakened with the Diſeaſe, is bold too long, and wiſe too late. That Peace is too preciſe, that limiteth the juſtneſs of a War to a Sword drawn, or a Blow given.

The next thing they who undertake a War ought to obſerve, is Secreſie and Expedition in their deſigns: It is a perilous weakneſs in a State to be ſlow of reſolution in the time of War: ſuch Affairs attend not time. Let the wiſe Stateſman therefore abhor delays, and reſolve rather what to do than what to ſay. Slow

deliberations are ſymptoms either of faint Spirits, or weak Forces, or falſe Hearts.

In War more than any other profeſſion the command ought to be ſingle. For though you have many Armies in the Field, yet ought you to appoint one General to have the abſolute command over the reſt of your Generals.

And there ought to be a ſpecial care in making choice of an able General. For an able General will make choice of good Officers, and ſuch as are fit for VVar: but a General that is not experienced in the Wars, if he meet with good Commanders, it is by hazard. This advantage alſo you will find by having an experienced and well reputed man to your General, that the Officers and Souldiers of your Army will fight with much the more reſolution, and confidence of Victory; and your Enemy will fight with the leſs reſolution and hopes of Victory. For good Officers will make good Souldiers, and good Souldiers are as neceſſary to a VVar as good ſtore of Gold. And therefore thoſe that undertake a VVar, muſt not always meaſure their Power by their Treaſure, but they muſt put the goodneſs of their Souldiers in the balance with their Treaſure.

Before you undertake a VVar, caſt an impartial eye upon the Cauſe. If it be juſt, prepare your Army, and let them all know they fight for God. This addeth fire to the Spirit of a Souldier, to be aſſured that he ſhall either proſper in a fair VVar, or periſh in a juſt Cauſe.

You muſt be moſt vigilant and careful to have all your Magazines doubly provided, that if any diſaſter befal your Armies, you may ſoon ſupply them again. He that would be in VVar victorious, muſt be in Peace laborious. You muſt likewiſe be very punctual

in

in ſending ſupplies of Mony, Men, and all other neceſſaries to your Army. For the want of any one ſupply many times coming too late proveth the loſs of the whole deſign; and in no profeſſion the loſs of time proveth ſo dangerous as in Martial Affairs.

You muſt not be apt to judge of your Generals Actions according to the Event, but according to Reaſon; and not to lay the fault of your Armies ill ſucceſs upon your General, when it lieth in your ſelves, either for want of neceſſaries, or timely ſupplies, or by bridling the Authority of your General too much. Beſides, if a General be never ſo wiſe, and diligent, he cannot foreſee every thing that may break, and croſs all that which he had purpoſed. For it is a Piece of Divine Power to direct a path free from the crookedneſs which might lead the ſtraight way to happy ends: and it were as great a madneſs to believe that a man were able to give directions to meet with all chances, as to think no foreſight can prevent any caſualty.

If you intend to have a well-commanded Army, you muſt pay them punctually, and then your General can with Juſtice puniſh them ſeverely.

You muſt foreſee that your Frontier Towns be well Fortified, well Manned, and well Victualled before your Army taketh the Field.

You ought not to neglect rewarding thoſe, that do you eminent Service; for by it you bind them to be faithful to you, and you encourage them to do the like Service upon another occaſion, and encourage others to be ambitious of the ſame honour. You muſt likewiſe be careful that the honour of ſuch as have done brave Actions and great Services be not diminiſhed nor blemiſhed. Becauſe the moſt generous Spirits (which will eaſily excuſe all want of other recompence for their Services) will never endure this, to be robbed of the honour

honour due to their brave actions, and will ſooner ſtomach ſuch a want of due honour, than any other thing whatſoever; whereupon very often great miſchiefs have followed.

You muſt not be too confident in the Arm of Fleſh, and in your Victories; give not too much honour to your Armies, and too little praiſe to God. Uſe all the lawful means you can for the executing of your deſigns, and by your Prayers recommend he ſucceſs to God, and the good conduct of your General. The Senate of the Romans reſerved nothing elſe to themſelves, but a power to make new Wars, and to confirm Peace: every thing elſe they referred to the arbitrement, and power of the Conſul. Notwithſtanding that there were in the Senate men exceedingly well experienced in the Wars; yet foraſmuch as they were not upon the place, and therefore ignorant of very many particulars, which were needful for them to know that will adviſe well, and by interpoſing their Counſels they would have committed many errors: For this cauſe they ſuffered the Conſul to do all of himſelf, and that the Glory thereof ſhould be entirely his; the love of which they thought would provoke and encourage him to do well.

It is a great vanity and indiſcretion in a Prince, or State in matter of War to undertake many enterprizes at once.

It is better for two weak Kingdoms rather to compound with an Enemy to ſome loſs, than ſeek for ſatisfaction by the Sword; leſt while they two weaken themſelves by mutual blows, a third decide the Controverſie to both their ruines. When the Frog and the Mouſe could not take up the Quarrel, the Kite was Umpire.

You ought to be careful you have no Officer in Chief

chief that is covetous, or given to pillaging. For ſuch men are good to no body, but themſelves and the Enemy; and are moſt commonly eaſily corrupted with mony. Such men ought by no means to be made Governours of Towns.

No Prince or State ought to doubt but that they may be able to make good Souldiers, when they want not men. For if they have many men, and want Souldiers, they ſhould rather complain of their own Sloth, and ſmall Wiſdom, than of the peoples Cowardize.

Chap. VI.

Some Obſervations, and Conſiderations to be obſerved, and thought on by a General, that taketh upon him the Command of an Army.

He that undertaketh the Command of an Army ought ſeriouſly to conſider the hazards of this Charge, and the difficulties, and examine his own abilities well before he adventureth on it: Becauſe if he groweth rich, he is traduced; if he fail, or prove unfortunate, he is calumniated, ſcandalized: And if the whole ſucceſs anſwereth not their opinions who imploy him, they will repine, although the fault moſt often is cauſed by their own neglect, or wilfulneſs, or by curbing the Authority of their chief Commander too much. And people are always apt

apt to judge of their Generals Actions rather by the event than reaſon. So that it is a very hard thing for a man to take the Command of an Army upon him, and to keep his reputation unto the end. Therefore no General ought to undertake any deſign timorouſly, or raſhly ; but ſuch Actions as he foreſeeth by his wiſdom, and experience, that his Maſter, or Maſters purſe, or purſes, and his own abilities be ſufficient to go through with Victory and Honour.

The firſt thing that a General ought to do, is to deſire God to aſſiſt him in all his Councils and Actions, and to beſeech him to give him and his Souldiers Courage in the day of Battel: For it is he who maketh our Enemies flee before us. It is he ſetteth up Kings, and Kingdoms, and pulleth them down at his pleaſure.

A General of an Army muſt make it his principal aim to begin well: and then not to omit any thing for the preſerving of what he hath gotten. He ought to be provident in taking care for Mony, Men, Arms, Victuals, Ammunition, a good train of Artillery, with all things neceſſary belonging to it ; Cloaths, Shoes, Stockings, and Shirts: He muſt foreſee and provide that none of all theſe things fail him in the execution of his Deſigns. And he muſt be careful to make choice of knowing, and valiant Officers for his Army. For you may obſerve in all the Roman Wars, that they conquered more Nations by their expert knowledge in Martial Affairs, than they did either by their Number or Valour. It hath been the manner of all famous Generals to bring their Souldiers to perfection by exerciſe.

A General ought carefully to obſerve theſe three things in his Martial Diſcipline, to recompence commendable Actions, to puniſh the bad, and conſtantly

to

to uſe the exact exerciſe of Military Diſcipline. He muſt never ſuffer his Souldiers in any place to be idle, eſpecially when the Army is brought together in a Body: for if he employ them not in that which is good, they will buſie themſelves in that which is naught.

It is the height of a provident Commander not only to keep his own deſigns undiſcoverable to his Enemy, but likewiſe to be ſtudious in diſcovering his. He that can beſt do the one, and neareſt gueſs at the other, is the next ſtep to a Conquerour: but he that faileth in both, muſt either aſcribe his Overthrow to his own folly, or his Victory to the hand of Fortune. He that is a Chief Commander ought to know that if he will be ſecure in War, he muſt be watchful and valiant: and that expedition and ſecreſie crowneth all warlike exploits with Succeſs and Glory: and that the opportunity of time is the Mother of all worthy Exploits.

In the courſe of War a General ſhall meet with ſome occaſions, wherein he is not only to contend with Men, but with Chances and Things, which are to be overcome with leſs difficulty, than an Enemy, and are more dangerous, as Hunger, Diſcontents, and Labour. Things well and happily atchieved do get the Commander great good-will from the Souldier, and things ill carried as much hatred. Wherefore a General ſhould always prefer courſes of ſecurity before thoſe of hazzard, and truſt Fortune no farther, than neceſſity conſtraineth him. *Cæſar* thought it not beſt to

tempt the waywardneſs of Fortune, when by other means he might obtain his deſires: and a wiſe General ſhould always rather follow Reaſon than Fortune.

War is not capable of a ſecond Error; one fault being enough to ruine an Army: And therefore a General ought to be careful even of poſſibilities, accounting always that which may happen, to be as certain as any thing which he doth moſt expect. A Generals Counſels ſhould not paſs approbation through his own judgment alone, neither ſhould they be communicated to more than is needful, neither are they to be haſtned forwards with paſſion, but ought oft to be maturated with ſtaid deliberation. Likewiſe he is to take ſpecial care that no humorous reſpect do hinder that reſolution which true judgment approveth. For oftentimes it falleth out that either particular profit, delightful pleaſures, deſire of revenge, or ſome other unſeaſonable affection doth ſo intangle them in their proceedings, as they never attain to the main drift of the action: and this is called *Stumbling by the way.*

A General muſt be careful not to meaſure the humour of his poor, needy, and undiſciplined Souldiers by the garb of his own ambitious thoughts; and ſo lay ſuch projects of difficulty as were very unſuitable in the particularity of occurrences, to that which his Souldiers were fit to execute: Neither ſhould he be ſo prodigal of his Souldiers Blood, as though men were made only to fill Ditches, and to be the woful executioners of his raſhneſs.

Of

Of all Victories a General ſhould think that beſt, which is leaſt ſtained with Blood.

It is requiſite in a General to mingle love with the ſeverity of his Diſcipline. They that cannot be induced to ſerve for love, will never be forced to love for fear: Becauſe love openeth the heart; fear ſhutteth it; that encourageth, this compelleth: And Victory meeteth encouragement, but flieth compulſion. If thou art called to the Dignity of a Commander, dignifie thy place by thy Commands: and that thou mayeſt be the more perfect in Commanding others, practiſe upon thy ſelf. A Chief Commander ought to know that that Command is beſt, and moſt ſure, when the Souldier rejoyceth in his Obedience.

What Souldiers earn with the hazard of their lives, if not enjoyed, propheſieth an overthrow to the next Battel.

A General ſhall rule much, if Reaſon rule him.

A General ought to uſe his beſt endeavours, to buy good ſucceſs with extraordinary labour. For Induſtry commandeth Fortune, ſaith *Cæſar*. And there is no doubt but diligence, and labourſome induſtry by circumſpect and heedful carriage ſeldom fail, either by hap or cunning, to make good that part, wherein the main point of the matter dependeth. And where the Lions skin will not ſerve his turn, there let him take part of the Foxes to piece it out.

It is a dangerous thing for a General to make himſelf chief in perſwading a Prince, or State to any weighty and important reſolution, ſo that the counſel thereof be wholly imputed to him, which belongs to many. For inaſmuch as men judge of things by their events, of all the evils that riſe thereupon, the blame will be wholly laid upon him as Author: and if good come of it, he is commended for it; but the reward cometh much ſhort of the loſs which is hazarded. The Sultan *Selimus*, termed the great Turk, having made preparation (as ſome report) for the Conqueſt of *Syria*, and *Egypt*, was encouraged by one of his Baſhaws, who was then upon the Confines of *Perſia*, to undertake rather an Expedition againſt the *Sophy*: By whoſe counſel the Sultan was perſwaded, and went to that enterprize with an exceeding great Army. But coming into a very vaſt Country, where a great part of it is deſert, aud very few Rivers, and finding there thoſe difficulties which long ſince had ruined many Roman Armies, was ſo diſtreſſed, that he loſt moſt of his Army by Famine and Plague. Wherefore (however in the War he was vanquiſher) he cauſed the Baſhaw, Author of that counſel, to be put to death.

CHAP. VII.

Some Obſervations what is the fitteſt ſtrength for Armies to be of; and what proportion of Horſe and Foot, Dragooners, and Pioners, there ought to be in an Army. And likewiſe ſhewing the proportion of Pikemen, and Muſqueteers, according to the Service that they ſhall be moſt imployed upon.

AN Army of thirty or forty thouſand men Trained, well Diſciplined, carefully Conducted, and ſtill recruited upon all occaſions, may deſtroy an Army four times as great. Becauſe great Armies for want of Victuals oftentimes deſtroy themſelves. And an Army of thirty or forty thouſand may fight with an Army three or four times as big, and beat them; provided that by the advantage of their ground they avoid being ſurrounded: and the diſorder and confuſion that commonly is in a great Army, will likewiſe be apt to break them.

Where your Service lieth in Campagnia, the proportion of your Army ought to be two Footmen to one Horſeman, beſides your Dragooners. But where the Service of your Army ſhall be moſt in Sieges, there you ought to have three Footmen unto

to one Horſeman; and ſometimes four Footmen to one Horſeman, beſides your Dragoons; provided your Enemy be not able to over-maſter you in Horſe. But for your Body of Foot, when your Service ſhall chiefly conſiſt in the Campagnia, then you ought to have as many Pikemen as Muſqueteers amongſt your Foot, beſides your Dragooners. But where your Service lieth moſt in Sieges, there you ought to have in your Body of Foot beſides your Dragoons two Muſqueteers to one Pikeman: and to every eight hundred Horſe you ought to have an hundred and fifty Dragooners. And always to an Army of twenty thouſand, or thirty thouſand men, you ought to have a thouſand Pioners; whereof an hundred ought to have horſes, as a neceſſary part of the Army upon a March, a retreat, drawing off Cannon in a Battel, and at Sieges. I do not mean that theſe Pioners ſhall be entertained to make the Souldiers lazy: For each Souldier ought to know what belongeth to his labour for his ordinary pay, that is, to paſs upon his Duty punctually, and willingly, namely to March, Watch, Fight, and intrench himſelf, and to be ready to endure with Obedience and Patience, Labour, Hunger, Cold, and Heat.

CHAP. VIII.

Some Obſervations concerning the Arming of an Army, and how each Souldier ought to be Armed.

ONE of the greateſt advantages that I know which can be taken in War by a Chief Commander, is to endeavour to have his Army better armed than his Enemies Army, both with Offenſive Arms, and Defenſive Arms. Arms are the ſecurity of your own Souldiers, the terror of the Enemy, and the aſſured ordinary means of Victory. And this is certain, that the moſt warlike Nations, and moſt Victorious, have always ſought to get advantage of their Enemies by advantage of Arms. The end of Arms is either to aſſault, or defend; and hence are Arms divided into two kinds, Offenſive and Defenſive. Offenſive Arms are to do execution upon your Enemy; and Defenſive Arms raiſe the Spirits, ſtirre up deſire to fight, make the Souldier bold, and chearful to perils. And whereas the Defenſive Arms of Horſe-men and Pike-men are much ſlighted by ſome in theſe times, I would have ſuch to know, that Souldiers ought to go into the Field to Conquer, and not to be killed. And I would have our young Gallants to take notice, that men wear not Arms becauſe they are afraid of danger, but becauſe they would not fear it. And I am confident,

fident, that one Army well armed with Defenſive Arms, may very well expect without any great difficulty to win twenty Battels one after another of Armies equal in ſtrength, equally conducted, and fighting upon equal advantage of ground, but not armed with Defenſive Arms. So much advantage do I ſuppoſe to be between Armies that are armed, and Armies that are not armed with Defenſive Arms.

I will now ſhew you how Horſemen, Footmen, and Dragooners ought to be armed with Offenſive and Defenſive Arms.

An Horſemans Offenſive Arms are theſe.

A Carbine, or a Muſquet-barrel of the length of a Carbine-barrel, well ſtockt with a Snapance: the which I hold to be much better then a Carbine for Service. Alſo a caſe of Piſtols, and a good ſtiff long Tuck, and a Belt.

An Horſemans Defenſive Arms are,

An Head-piece with three ſmall iron Bars to defend the Face, Back, and Breaſt; all three Piſtol-proof: a Gauntlet for his left hand, or a good long Buff Glove. A Girdle of double Buff about eight inches broad, which is to be worn under the skirts of his Doublet, and to be hooked unto his

his Doublet, and made ſo that it may be faſtned together before. If you find Buff to be ſcarce and dear, you may make thoſe Girdles of Buff before ſpoken of with Bull Hides, or good Oxes Hides, dreſſed like Buff.

The Furniture that belongeth to an Horſeman's Horſe is as followeth.

He ought to have a very good Horſe, and a good Pad-Saddle made, ſo that it may very well carry a Caſe of Piſtols, three good Girts, a pair of good Stirrups, and Stirrup-leathers; with a Crupper, and a Fore-Pattern: alſo a good Bitt, Rains, and Head-ſtall, with a good leathern Halter.

I have omitted here to ſpeak any thing of the Armour of a good Cuiraſſier, becauſe there are not many Countries that do afford Horſes fit for the Service of Cuiraſſiers: But where Horſes are to be had fit for that Service, there a General ought to have two thouſand of them in his Army.

The Offenſive Arms of a Muſqueteer are theſe.

A Muſquet and Reſt, and a good ſtiff Tuck not very long, a Belt, a pair of Bandaliers; but

you muſt be careful that the Charges be not made too big, which is a great and common fault now adays. Alſo every Muſqueteer ought to have a Scourer to make clean his Muſquet: For he muſt be very careful in keeping his Muſquet clean, or elſe it will be very apt to break upon Service, by means of which neglect I have known many Souldiers ſpoiled.

The Defenſive Arms of a Muſqueteer is a good Courage.

But in caſe you have more Muſqueteers than you have Pikes, ſo many Muſqueteers as you have more than Pikemen in your Army ought to have Swine-feathers with heads of reſts faſtned to them. My reaſon for it is this, your Pikemen will be able with eaſe to ſhelter from the violence of the Horſe ſo many Muſqueteers as they are in number: and theſe Muſqueteers which have the Swine-Feathers being imployed by themſelves, will be able likewiſe to defend themſelves from the Horſe, with the help of their Swine-Feathers.

The Offenſive Arms of a Pike-man are theſe.

A good long Pike of eighteen foot in length with a ſmall Steel head, and a good ſtiff Tuck not very long, with a Belt: for if you arm your men

men with Swords, half the Swords you have in your Army amongſt your common men, will upon the firſt March you make be broken with cutting of Boughs.

The Defenſive Arms of a Pike-man are theſe.

An Head-piece with Back and Breaſt; a Buff Girdle of double Buff eight inches broad, the which is to be worn under the Skirts of his Doublet inſtead of Taces. The ſame Buff Girdle is to be hooked up to his Doublet, and to be faſtned before. A good long Buff Glove for the left Hand. I am well aſſured that a Girdle of Buff will be much ſafer, and much more ſerviceable, and eaſier for a Pike-man to wear than Taces.

The Offenſive Arms of a Dragoon are theſe.

A Muſquet, or a good Snapance to a Muſquet Barrel; the which I hold much better for Dragoon-Service, being upon occaſion they may be able to make uſe of their Snapances on Horſeback, and upon any Service in the night they may go undiſcovered. He muſt have alſo a Belt to hang his Muſquet in, with a pair of Bandaliers, and a good long Tuck, with a Belt. And all your Dragoons ought to have Swine-feathers.

Of a Dragoon Horſe and Furniture.

He ought to have a good ordinary Horſe, *ſt.* Saddle, Snaffle, Rains, Stirrups, and Stirrup-Leathers, an Halter, and two Girts.

There are ſome other neceſſaries that Souldiers ought to be furniſhed withal; the which I do think fit to be ſpoken of in this place, and they are theſe.

Each two Foot-Souldiers ought to have a little Hatchet between them for the cutting of Wood for Firing, and Wood for Hutting: Alſo each two Dragoons ought to have an Hatchet between them for the aforeſaid purpoſe. Each Souldier ought to have a Knap-ſack, each Company of Foot, and Dragoons to have a Powder-Bag.

Chap. IX.

A List of the Chief Officers that belong to an Army, and what Strength each Regiment ought to have of Horſe, Foot, and Dragoons.

A General, a Marſhal of the Field, a Lieutenant General of the Horſe, a General of the Ordnance, or Maſter of the Ordnance; a Serjeant-Major-General of the Horſe; a Serjeant-Major-General of the Foot: Colonels of Brigades both of Horſe and Foot: the Treaſurer of the Army; Colonels of Regiments both of Horſe and Foot; a Lieutenant General of the Ordnance; Serjeant Majors of Brigades both of Horſe and Foot; a Commiſſary General of the Victuals; Lieutenant-Colonels of Regiments of Foot; Serjeant-Majors of Regiments both of Horſe and Foot; a Quarter-Maſter General of the Foot; a Quarter-Maſter General of the Horſe; an Engineer General; a Scout-Maſter General; a Waggon-Maſter-General; Captains both of Horſe and Foot; and Corporals of the Field.

The Marſhal of the Field receiveth Orders from the General; the Major-General of the Horſe, and the Major-General of the Foot receive their Orders from the Marſhal of the Field; the Serjeant-Majors of the Brigades from their Serjeant-Major-General; the

the Serjeant-Majors of Regiments from the Serjeant-Major of their Brigade; the Quarter-Maſters of Horſe-Troops, and the Serjeants of Foot Companies receive their Orders from the Serjeant-Majors of their Regiments; the Quarter-Maſters of Horſe-Troops, and Serjeants of Foot Companies give the word, and ſuch Orders as they do receive from the Serjeant-Majors of their Regiment to all the Officers of their Companies: the Quarter-Maſter of the Artillery, and the Quarter-Maſter of the Victuals receive their Orders from the Marſhal of the Field, the Marſhal of the Field ſpeaking with the Serjeant-Major-General of the Horſe, and the Serjeant-Major General of the Foot, the Quarter-Maſter of the Artillery, and the Quarter-Maſter of the Victuals, ſo giveth Orders to all the Army.

All Orders and Commands ought to be given in Writing, if there be time for the ſame.

Thus much more I do think fit to add in this place, That my opinion is, each Troop of Horſe ought to be an hundred in ſtrength, beſides Officers, and each Troop ought to have two Quarter-Maſters.

Each Foot Company in my opinion ſhould be an hundred and fifty ſtrong, beſides Officers, and each Company ought to have ſix Serjeants.

Each Regiment of Horſe in my opinion ought to be eight hundred in ſtrength, beſides Officers; and ſo many Regiments of Horſe as there is in an Army, ſo many Troops of Dragooners there ought

to

to be of an hundred and fifty in ſtrength, beſides Officers, and each Troop of Dragooners ought to have ſix Serjeants.

Each Regiment of Foot ought to be a thouſand five hundred in ſtrength, beſides Officers.

Each Regiment of Dragooners muſt be in ſtrength according unto the number of the Regiments of Horſe that there is in an Army.

CHAP. X.

Some Obſervations ſhewing how neceſſary it is to have Souldiers well Diſciplined, and well Exerciſed before they are brought to Fight.

IT cannot be denied but Warlike Diſcipline, and good Fortune were the raiſers of the Roman Empire. And it is not length of life, or number of years that teacheth the Art of War, but continual Diſcipline, and Meditation of Arms, till a man hath with care and diligence imployed his ſtudy and labour therein. For upon the Foundation of Practice is grounded the Frame of ſound and perfect skill. *Plutarch* ſpeaketh this of the Victory which the *Thebans* had againſt the *Lacedemonians*; the *Thebans* till that day had no reputation

tation for Valour, but afterward by exerciſe, and uſe of Arms under *Epaminondas* and *Pelopidas* became the braveſt Souldiers in *Greece*: Not unlike was the ſaying of *Pyrrhus* to his Muſter-Maſter, *Chooſe you,* ſaid he, *good Bodies, and I will make them good Souldiers.* This ſheweth how neceſſary Diſcipline, and Exerciſe is for the making of good Souldiers.

CHAP. XI.

Some Obſervations concerning a Train of Artillery, and him that Commandeth it.

THE General of the Ordnance ought to be a man generally experienced in all parts of Martial Diſcipline, eſpecially in all parts of the Mathematicks, and in Gunnery. It is a place of great Honour, and much Trouble, and requireth much experience, and a great deal of care, and foreſight for executing the place well. The General of the Ordnance ought to chooſe an able man to be a Lieutenant of the Ordnance, and to take care that the chief Engineer be an able man, and alſo the inferiour Engineers. The Maſter Gunner oũght to be a very able man, and the inferiour Gunners very good. The General of the Ordnance muſt likewiſe foreſee that there be a skilful Fire-work-Maſter; and that he be not only skilful,

skilful, but valiant, and able to put his skill in execution. Likewiſe there ought to be provided good Battery-Maſters, and works Baſis's. To ſetd own every particular thing, and the Officers that belong to a Train of Artillery, would require the labour of writing a Book by it ſelf. Wherefore I will but touch on ſome particular things, and places, and leave the reſt to the care of the General of the Ordnance, to make choice of ſuch Officers as a Train of Artillery requireth, and he will have need of; and to provide for every thing in particular, according unto the deſigns that he ſhall take in hand.

The General of the Ordnance ought to give ſpecial Order to his Maſter-Gunner, that ſuch Guns as he maketh choice of for his Train, be diligently tried by him, whether they be true boared, or whether they have their full Metal: and that all the Field-Pieces that are made choice of for the Train be ten or twelve Foot long. The which you will find to be of great advantage in fighting a Battel with your Enemy, whoſe Field-pieces are not ſo long. All your Pieces of Battery ought to have Block-Carriages, beſides their other Carriages; and to each Piece of Battery two thick planks three inches thick, and ſixteen or eighteen inches broad, and fourteen foot in length. The which planks may be eaſily carried upon your ſpare Carriages: and theſe planks will be always ready at hand, and ſave planking of your Batteries. You ought to have the powder for your Cannon to be made up into Carthrages for all your Cannon; and this way you will find leſs dangerous, and

much quicker for ſervice, than the charging of them with Ladles. The Waggons that carry your Powder, ought to be planked with thin planks on the ſides, and over at top. Then you may have Locks ſet on them, and keep them locked; by which means a Rogue will not be able eaſily to fire your Powder upon a March.

It were very fit the Lieutenant of the Ordnance, the Commiſſary of the Victuals, and the Maſter of the Fireworks ſhould have Companies of Fire-locks, or Snapances of an hundred and fifty apiece; the which Companies will ſerve to guard the Train upon a March, and at night in their Quarters, and free the Army from that Duty, and be very ſerviceable upon divers other occaſions. Cannon is a great clog to an Army upon a March, but an Army which hath none, can do no great Service: and therefore in theſe times the Artillery is an eſſential part of an Army.

It is very fit a General of the Ordnance ſhould have belonging to his Train ſome certain number of Boats, or Punts with Carriages to carry them on, for to make a Bridge over unpaſſable Rivers.

Chap. XII.

Some Obſervations, and Preparations to be obſerved by a General in Field-Service: alſo concerning Intelligences and Spies.

As ſoon as a General can get Proviſions for his Horſe, it will be moſt advantageous for him to have all things in a readineſs to take the Field. For if he take the Field before his Enemy, he preventeth the Enemy of his Deſigns. A General ought to be careful before he taketh the Field with his Army, that he provide for the punctual ſupplying of his Army with Mony, Ammunition, Victuals, Arms, Men, Shoes, Stockings, Shirts: And ſeeing it is impoſſible for an Army upon a March to carry with them ſufficient of all theſe neceſſaries; therefore a General ought carefully to foreſee, as he advanceth any way with his Army, that his Magazines for his Army be always ſo near him, and ſo well ſtored with ſuch things as he ſhall have occaſion to uſe, that his deſigns fail not for want of any of the aforeſaid things. And he muſt be careful that his Enemy be never able to cut off his Proviſions at any time, or his Retreat.

A General or Chief Commander ought to ſee that he doth not ruine his Army upon diſadvanta-

ges, either by engaging them unadviſedly in Battels, or by aſſaulting Towns, and Breaches raſhly, or by long Sieges, or long Winter Services, without good probability, and aſſurance in the judgment of men to prevail. And he muſt take care always to joyn Judgment with Valour in all his Actions.

A General ought carefully to lay hold on ſuch occaſions as offer themſelves to defeat his Enemy; and judiciouſly obſerve to know when to fight, and when not.

A good Commander ought wholly to avoid doing any thing, which being but of ſmall moment may only produce evil effects in his Army. For to begin a Skirmiſh, or a Combate, wherein the whole Forces are not imployed, and yet the whole fortune is there laid to ſtake, is a thing ſavouring too much of raſhneſs: And yet I hold it fit that wiſe and experienced Commanders when they meet with a new Enemy that is of Reputation, before they come to joyn Battel, ſhould cauſe their Souldiers to make trial of them by ſome light Skirmiſhes; to the end, that beginning to know them, and to have to deal with them, they may be rid of that Terror which the Report and Reputation of theſe men have put them in. And this part in a General is of exceeding great importance; for theſe ſmall experiences made by the Souldiers will cauſe them to caſt off that terror, which by means of the Enemies Reputation had poſſeſſed them. Thus *Livy* ſaith, that *Valerius Corvinus* was ſent by the *Romans* to make ſome ſmall Skirmiſhes

Skirmiſhes with the *Samnites*, that a new War, and a new Enemy might not affright them: But a good Commander muſt be very careful that nothing ariſe, which upon any accident may take away the Courage, and Hearts of his Souldiers. Now that which may be of force to take away their Courage, is to begin with loſs. And therefore a Commander ſhould be very careful how he engageth any of his Troops in ſmall Skirmiſhes; and that he ſend no parties out of his Army upon any occaſion, without taking care that they be commanded by good Commanders: and that the Officers that Command ſuch Parties have Order not to engage themſelves with the Enemy, unleſs they have ſome certain hopes of Victory. Nor ought he to undertake to guard any paſſages, where he cannot bring his whole Army together. Nor ſhould he keep any Towns, unleſs it be thoſe, upon loſs whereof his utter ruine followeth. And thoſe that he guardeth, he ſhould take ſuch care both for their Defences, and alſo with his Army, that when-ever the Enemy hath any deſign to aſſail them, he may make uſe of all his Forces to the reſcue of them.

If you have any certain hopes of ſtarving your Enemy, or putting him to a retreat for want of Proviſions, your ſecureſt way then will be not to fight with him, eſpecially if your Enemy be of equal ſtrength with you, or ſtronger than you are.

If a Commander in Chief diſcovereth his Enemies Foot to be lodged in their night Quarters in a Campag-

Campagnia with their Carriages, it were good then to charge them in the night with ſo many Horſe, as you ſhall think fit in ſeveral places; and leave part of your Horſe and Dragoons to make good their retreat upon occaſion. If it falleth ſo out that your Horſe cannot totally rout your Enemies Foot, let them have Order to fire their Ammunition, and ſo retreat.

It is very fit a General ſhould often command his Horſe and Dragoons to fall upon his Enemies outermoſt Horſe-Quarters. The which is one of the readieſt, eaſieſt, and ſecureſt ways that I know of to break an Enemies Army.

A General is not ſo much blamed for making trial of an ill-digeſted project, as he will be for the obſtinate continuing in the ſame. Therefore the ſpeedieſt leaving of any ſuch enterpriſe doth excuſe the raſhneſs, which might be imputed to the beginning.

Difficulties of extremity are never better cleared, than by adventurous and deſperate undertaking. And hence groweth the difference between true Valour, and fool-hardy Raſhneſs, being but one and the ſame thing, if they were not diſtinguiſhed by the ſubject, wherein they are ſhewed. For to run headlong into ſtrange adventures upon no juſt occaſion, were to ſhew more levity, than diſcretion: and again, to uſe the like boldneſs in caſes of extremity, deſerveth the opinion of vertuous endeavours.

A General ſhould always be careful ſo ſoon as he

he cometh out of the Field to viſit his Frontier Towns, and take with him ſome of his beſt Commanders, and ſome of his choice Engineers, and to ſee what Fortifications his Frontier Towns want, and to give order for the repairing of ſuch wants: and likewiſe to take care that the Magazines be furniſhed with a years proviſion, and that he give eſpecial Command to the Governours of his Frontier Towns to be careful by their vigilance and good itnelligence to prevent ſudden ſurpriſes, and valiantly to defend their Towns, and providently to diſpoſe of their proviſions in caſe they ſhould be beſieged.

Concerning Spies you muſt be always ſuſpitious of them; becauſe as it is a dangerous task for him that undertaketh, ſo it is alſo for him that imployeth them: And that Spies may not agree to give falſe advice, they ſhould be examined ſeverally, that by the agreement or diſagreement of their advices, you may judge whether they be good: and by the verification of thoſe which ſpeak true or falſe, you ſhall know who betrayeth you, or doth you true Service. But this is not all, to beware of your own Spies; you muſt alſo take heed of thoſe of the Enemy, which you muſt pre-ſuppoſe you have in your Camp For this reaſon, beſides the ſecreſie which muſt be uſed in all enterpriſes, it is good to give a charge by publiſhing (in a ſtill way) that you have a quite contrary deſign to that which you purpoſe to put in execution; that ſo theſe Spies may report it to the Enemy. But the moſt effectual means to be well ſerved by theſe kind of men, is to be very liberal to them; for they are faithful

faithful to thoſe who give them moſt. A General muſt take care that he have continually Spies in the Enemies Army, to know when his Enemy moveth, and what condition his Enemies Army is in; and he ought to have in every Frontier Town of his Enemy ſome correſpondence with ſome Town-dweller, or Souldier of the Garriſon, that by them he may underſtand from time to time what condition his Enemies Garriſons are in. And if the Enemy draweth any Forces to an head at any of his Frontier Towns, let the aforeſaid people give the Governour of your next Garriſons notice of it. You ought to know that Intelligence is the moſt powerful means to undertake brave Deſigns, and to avoid great Ruines: and it is the chiefeſt Foundation upon which all Generals do ground their Actions.

A General that Commandeth an Army, and ſeeth that for want of Mony he cannot keep them long together, is unwiſe if he ventureth not his Fortune before his Army falleth aſunder: For by delaying he certainly loſeth; whereas hazarding he might overcome. Another thing there is yet much to be accounted of, which is, that a man ought (even in his loſing) ſeek to gain Glory by being overcome by force, than by any other inconvenience.

The principal Heads of War for Field-Service, are the Art of Marching, Incamping, Imbatteling, and to know the ways how to procure good Intelligence, and providently and skilfully to get Proviſions fit for his Army, and his Deſigns, and not to

to ground his foundations upon vain imagination.

In matter of War the motions ought to be quick, where the leaſt moment of time oft carrieth the whole buſineſs.

It is neceſſary in War oftentimes to change Counſels according to the variety of the accidents.

In execution of Deſigns of War, good judgment ought to ground them, and diligent expedition put them into Act on For the leaſt fault or ſtay that a man commiteth may give leaſure, and occaſion for the Enemy to provide, that all the plots, and counſels how good ſoever ſhall ſerve to no purpoſe.

CHAP. XIII.

What ſtrength Diviſions of Horſe ought to be from four thouſand to ten thouſand, when they are to March in an Army, and when they are to Fight a Battel; or if Foot be to Fight on the Flanks of each Diviſion of Horſe, or when they come to be Embattelled to Fight on the Flanks of an Army. That ſmall Diviſions both of Horſe and Foot are much better than great Diviſions for Service either in Campagnia, or within Encloſures; becauſe they are not ſo apt to fall into Diſorder, and are much more ready to be commanded upon all occaſions.

AN Army which is imbattelled in ſmall Diviſions of Horſe and Foot, is not ſo eaſily routed as that Army which is imbattelled in great Diviſions. And ſmall Diviſions are much more ready than great Diviſions: for beſides ſeconding one another, and wheeling upon all occaſions, they will likewiſe out-front an Army which is imbattelled in great Diviſions: The which is one of the greateſt advantages that can be taken in the imbattelling of an Army. Alſo ſmall

ſmall Diviſions of Horſe and Foot are much readier for Service, where you cannot imbattel them according to the rules of Art, by the nature of the place, or within incloſures, or where the brevity of the time will not give you leave. To conclude, an Army that is imbattelled in ſmall Diviſions is much more troubleſome for an Enemy to deal withal, than an Army that is imbattelled in great Diviſions.

It is moſt convenient, and ready to have your Diviſions of Horſe and Foot, to March at the ſame ſtrength, or ſome ten or twelve men more in a Diviſion, than you intend to fight them in a Battel: by this means your Army will be much readier, and ſooner imbattelled upon all occaſions. If you fight your Horſe in a day of Battel on the Flanks of your Body of Foot (which is the uſual way of placing the Horſe:) and if you intend to Skirmiſh in the day of Battel with a ſmall Diviſion of Foot on each flank of each Diviſion of Horſe (which I hold to be the beſt and ſtrongeſt way of imbattelling your wings of Horſe) provide always that your Muſqueteers in each Diviſion of Foot, that are to Skirmiſh on the flanks of each Diviſion of Horſe in a Day of Battel, be ſo ordered that they may be ſheltred by Pikes from the Force of the Enemies Horſe. And in what order the two Diviſions of Foot ſhall fight in a Day of Battel on the flanks of each Diviſion of Horſe, ſo as to have the Muſqueteers ſheltered by the Pikes from the force of the Enemies Horſe, ſhall be demonſtrated unto you in the following figures.

If your ſtrength of Horſe be four thouſand, and if they be to fight on the flanks of a Body of Foot, and each diviſion of Horſe to have a diviſion of Foot fighting on each flank, then each Diviſion of Horſe ought to be forty in front, and three deep; and ſo the ſtrength of each Diviſion of Horſe will be an hundred and twenty. If your ſtrength of Horſe be five thouſand, then each Diviſion of Horſe ought to be an hundred and fifty ſtrong, fifty in front, and three deep. If your ſtrength of Horſe be ſix thouſand, or ten thouſand, then ought you to have an hundred and eighty in a Diviſion, ſixty in front, and three deep. And of this ſtrength (as is aforeſaid) ought your Diviſions of Horſe to be. If you intend to fight Foot on the flanks of each Diviſion of Horſe in a Battel, the Diviſions of Foot that ſhall fight on each flank of each Diviſion of Horſe, ſhall be in ſtrength twelve files of Pikes, and twelve files of Muſqueteers, which in all make a Body, or a Diviſion of an hundred forty four men. And on the flanks of each Diviſion of Horſe, when you come to imbattel them to fight, you muſt place a Diviſion of Foot of an hundred forty four men, half Pikes and half Muſqueteers. The order how the Diviſions of Horſe and Foot ſhall march together when they come near an Enemy, and how they ſhall imbattel, and skirmiſh, ſhall be demonſtrated in the following Figures. The Diviſions of Foot before ſpoken of, will ſerve to fight on the flanks of any Diviſion of Horſe of what ſtrength you pleaſe to have them.

In the firſt place, for your better underſtanding of this new way of Diſcipline (the which I am well

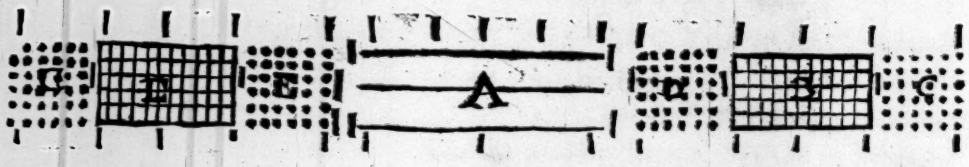
well aſſured you will find very ſerviceable and advantageous againſt an Enemy, if you make uſe of it) I will demonſtrate unto you in the following Figure, in what order a Diviſion of Horſe, and two Diviſions of Foot ſhall ſtand ready to march, to be imbattelled when occaſion ſhall ſerve. The which order muſt be obſerved by all the reſt of the Diviſions. By this means you may underſtand how all the reſt of the Diviſions of Horſe and Foot that are to fight on the flanks of an Army in a day of Battel may be ordered for a march, and to be in readineſs to be imbattelled, when an Army cometh near the Enemy.

Theſe Figures following lettered with *A B C D E F G*, ſhew you the order of the Diviſions of Horſe and Foot (I mean thoſe Diviſions of Horſe and Foot that are to be imbattelled together in a day of Battel on the flanks of the Body of Foot) to be ready to march when occaſion ſhall ſerve, or to be imbattelled. And this order which ſhall be here ſet down for this one Diviſion of Horſe figured with the Letter *A* in the following Figure, and the two Diviſions of Foot figured with the Letters *B C D E F G*, the ſame order ought to be obſerved after the ſame manner for a march when you come near an Enemy. By this means your Army will be much the ſooner imbattelled upon any occaſion, and always in a readineſs to receive your Enemy: if ſo be your Diviſions of Horſe and Foot, when they march, be of the ſame ſtrength as you deſire to have them when they are imbattelled to fight, and that you march your Diviſions of Horſe and Foot by Brigades as you do intend to fight them.

The

Front.

Foot. Horſe. Foot.



Reer.

The Figure before, figured with the letter *A*, ſtandeth for a Diviſion of Horſe; the order that they are in, in rank and file, is their order. The figures figured with *B C D E F G*, are ſmall Diviſions of Foot, the which ſhall be at large demonſtrated in this following obſervation: the order that they ſtand at in rank and file, is their order, *viz.* three foot in file, and ſix in rank. The diſtance of ground between the Diviſions of Muſqueeteers *D F* and the Diviſion of Horſe *A*, is thirty paces, three feet to the pace. And this diſtance of ground of thirty paces between the two Diviſions of Muſqueeters *D F*, and the Diviſion of Horſe marked with the letter *A* ought to be when the Diviſions of Horſe and Foot are imbattelled to fight. The diſtance of ground between the Diviſion of Muſqueteers, and the Diviſions of Pikes is twelve Footmen. Which are Pikes, and which are Muſqueteers this following demonſtration will declare unto you. The figure before, figured with the letter *A*, is a Diviſion

of

of Horſe of threeſcore in front, and three deep; and in the ſtrength of the Diviſion is an hundred and eighty Horſe. The figure with ſix files, and ſix ranks of ſmall pricks figured with the letter *C*, is a Diviſion of Muſqueteers, in ſtrength ſix and thirty, each ſmall prick ſtanding for a Muſqueteer. The figure figured with the Letter *B* with croſs ſtrokes, is a Diviſion of Pikes of twelve files and ſix deep. The ſtrength of the Diviſion is ſeventy two Pikemen, and each ſtroke ſtanding in way of a rank ſtandeth for a rank of Pikes being twelve in rank; and each ſtroke ſtanding in way of a file is to be accounted for a File ſix deep. The figure figured with the letter *D* is a Diviſion of Muſqueteers of the ſame ſtrength that the figure *C* is. The figures figured with the Letters *E F G*, are the ſame that *B C D*, and the little ſmall ſtrokes in the Front, Reer, and Flanks of the Diviſions of Horſe and Foot ſtand for Officers. When theſe two Diviſions of Foot, and one of Horſe are to march away by ſmall ſub-diviſions, as the way will give leave; then the right-hand diviſion of Foot figured with *B C D* is firſt to march away: next, the Diviſion of Horſe ſignified by the Letter *A*, then the left-hand Diviſion of Foot figured with the Letters *E F G* is to follow the Diviſion of Horſe figured with the Letter *A*. You are to appoint to every Diviſion of Horſe two Diviſions of Foot, like as you ſee in this former figure of *A B C D E F G*, if your Foot will hold out to do it. If you have not ſo many as to do it, you ought not to fail to flank each Diviſion of Horſe in the Van-guard of your Army with two Diviſions of Foot, as is ſet down in the former figure. And each Muſqueteer of

thoſe

thoſe Diviſions of Foot which are to be imbattelled on the flanks of each Diviſion of Horſe ought to have, when they come to encounter with the Enemy, two pair of Bandaliers, or a pair of Bandaliers, and a dozen of Charrages in each Muſqueteers Pocket. Likewiſe each Muſqueteer ought to have twelve ſpare Botlets beſides his Bandaliers furniſhed with Powder and Bullet: and each two Diviſions of Foot ought to have a Powder-Bag full of Powder carried along with them. All the Diviſions of Horſe and Foot that are to be imbattelled together on the flanks of your Army in a day of Battel, for the Wings of your Battel being divided into Brigades, are to march after this order as is here ſet down for the marching of this one Diviſion of Horſe, and two of Foot when you are near an Enemy and marching towards him. This way of fighting Foot amongſt Horſe is much the ſtronger way of Imbattelling an Army in my judgment then any other that I have either ſeen or read of: and hereafter in a fit place I ſhall ſhew ſufficient reaſon for to prove it ſo to be.

The following figure marked with the Letters *H I K L M N O*, ſhall ſhew you in what manner the Muſqueteers in the two Diviſions of Foot that are imbattelled on the flanks of each Diviſion of Horſe, as you ſee them in the foregoing figure marked with the letters *A B C D E F G*, how, I ſay, the aforeſaid Muſqueteers ſhall be drawn into a fit Order to give fire on the Enemies Horſe or Foot upon any occaſion.

The words of Command that you are to give

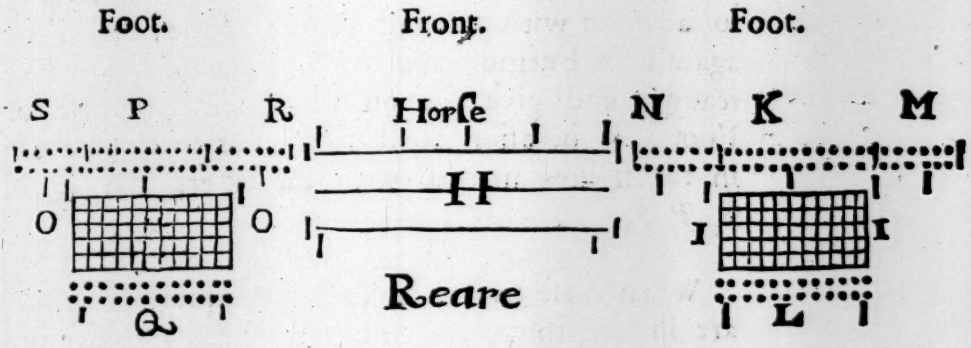
to

to the Muſqueteers to bring them into the Order of the following Figures *K L N O*, from the Order of the foregoing figures *C D F G*, are theſe words of Command which follow. Command the two firſt Ranks of the two Diviſions of Muſqueteers marked with the Letters *C* and *D* to march forwards till the two laſt ranks of the aforeſaid two ranks of both the Diviſions be twelve foot beyond the front of the Pikes, then command them to ſtand; then command the two ranks of Muſqueteers that belong to the Diviſion of Muſqueteers marked with the letter *C*, to turn to their left hands, and the two ranks of Muſqueteers marked with the letter *D*, to turn to their right hands: then command theſe four ranks of Muſqueteers, the which are now files, to march forwards till they meet. Then command thoſe Muſqueteers which before did turn to their right hands, to turn to their left hands, and thoſe Muſqueteers which did turn to their left hands, to turn to their right hands, and file even with the Pikes. Then command the two laſt ranks of Muſqueteers of the two Diviſions of Muſqueteers marked with the letters *C D*, to turn to their right hands about, and march forward, till the two reer ranks of both the Diviſions be twelve feet beyond the reer rank of Pikes in the Diviſion of Pikes marked with the letter *B*. Then command the four ranks of Muſqueteers to ſtand, commanding the two ranks of Muſqueteers that belong to the Diviſion of Muſqueteers marked with the letter *C*, to turn to their right hands, and the two ranks of Muſqueteers marked with the letter *D*, to turn to their left hands. Then command the

four ranks of Muſqueteers, which are now files, to march forwards, and meet in the reer of the Pikes. Then command thoſe Muſqueteers which did before turn to their right hands, to turn to their right hands again, and thoſe Muſqueteers which did turn to their left hands, to turn to their left hands again, and file even with the Pikes. Then command the two middlemoſt ranks of Muſqueteers, which are left of both the Diviſions of Muſqueteers marked with the letters *C* and *D* to march forward, and front even with the Muſqueteers in the front of the Pikes. Then command the Diviſion of Horſe marked with the letter *H* to cloſe their ranks and files to their cloſe Order: and the Diviſion of Pikes marked with the letter *B*, and the two ranks of Muſqueteers, which are now in the reer of the Pikes, to cloſe their ranks and files to their cloſe order.

The ſame words of Command and Order muſt be obſerved by the two Diviſions of Muſqueteers marked with the letters *G F*, as is here ſet down, and obſerved by the two Diviſions of Muſqueteers *C* and *D*. And theſe words of Command which are here ſet down, will bring the former figure marked with the letters *A B C D E F G*, into the form and order of this following figure marked with the letters *H I K L M N O P Q R S*.

Foot.



By the words of Command which are before ſet down, the Muſqueteers in the former figure marked with the letters *A B C D E F G* are brought into this order and form, as you ſee them in the figure marked with the letters *H I K L M N O P Q R S*. Now what order this figure marked with the foregoing letters is in, I will here declare unto you.

The Diviſion of Horſe marked with the letter *H* is threeſcore in front, and three deep, who are now at their cloſe order in rank and file, the which is a foot and half in file, and ſix in rank. Likewiſe the two Diviſions of Pikes marked with the letters *I* and *O* on the flanks, and the four ranks of Muſqueteers in the reer of the Pikes marked with the letters *L* and *Q* are at their cloſe order in rank and file, the which is one foot and an half in file, and three in rank. Alſo the three ranks of Muſqueteers marked with the letters *M K N R P S* are at their order in rank and file; the which is three foot in file, and ſix in rank. Theſe twelve ranks of

Muſqueteers, which are in the front ſtand ready to advance with the reſt of the Horſe and Foot againſt an Enemy, and to be commanded to make ready, and give fire on the Enemies Horſe or Foot, as occaſion ſhall ſerve, as you ſee them in the figures marked with the letters *M K N R P S.*

When theſe twelve ranks of Muſqueteers which are in the front, are commanded to give fire upon the Enemy, you muſt command them to do it in this manner: Command the twelve ranks of Muſqueteers marked with the letters *M K N R P S* to make ready: being ready, command them to preſent, the which you muſt command them to do after this manner. Let the firſt ſix ranks of Muſqueteers before ſpoken of preſent, kneeling upon their right knees; then let the ſix laſt ranks of the former twelve ranks of Muſqueteers move up cloſe to the firſt ſix ranks of Muſqueteers which are preſenting and kneeling on their right knees. Then command all the Muſqueteers in the ſix laſt ranks to ſtep forward with their right legs within the in-ſide of their Leaders right legs, and ſtep forward with their left legs cloſe up to their Leaders left legs without-ſide of their Leaders left legs, preſenting their Muſquet over their Leaders heads in the firſt ranks. The twelve ranks of Muſqueteers marked with the Letters *M K N R P S* being thus preſented as is here ſet down, command them to give fire together; and when they have given fire, command them to advance eaſily with the reſt of the Foot and Horſe, and make ready again, and give fire after the

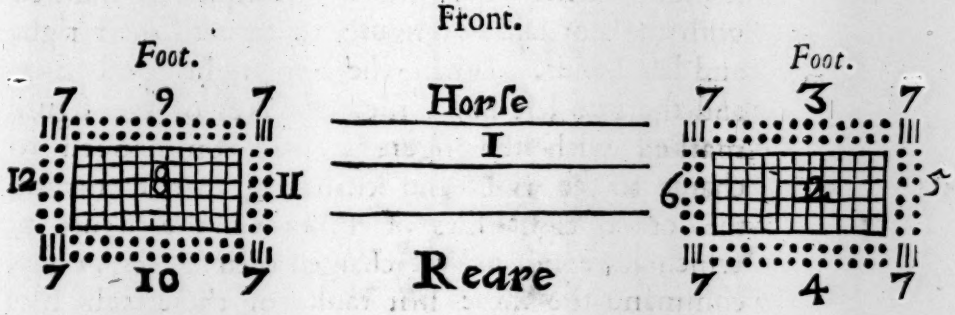
the ſame manner again, as is before ſpoken of, and ſo often as you pleaſe. The four ranks of Muſqueteers, which are in the reer of the two Diviſions of Pikes marked with the letters *L* and *Q* will ſerve, if any of your Muſqueteers in the front ſhall be hurt or ſlain.

Now I have ſhewed you how the Muſqueteers in the Diviſions of Foot, which are to fight on the flanks of each Diviſion of Horſe in a day of Battel, are to give fire on the Enemies Horſe. I will now ſhew you in the next figure marked with the figures of 1 2 3 4 5 6 7 8 9 10 11 12, how the Muſqueteers ſhall be ſheltered by the Pikes from the Enemies Horſe, when they ſhall charge the Diviſions of Foot, which are on the flanks of each Diviſion of Horſe. But firſt I will ſet down the way how you ſhall bring the Muſqueteers in the former figure marked with the letters *M N R S* to the order as you ſhall ſee them in this following figure marked with the figures 1 2 3 4 5 6 7 8 9 10 11 12. You muſt command the two ranks of Muſqueteers, ſix in front, and two deep on the right hand Diviſion of Foot marked with the letter *M*, to turn to their left hands, and command an Officer to lead them down on the right hand flank of the Diviſion of Pikes marked with the letter *I*, keeping one foot and an half diſtance from the right hand file of the aforeſaid Diviſion of Pikes, until he bring the two men that were the left hand men of the two ranks of Muſqueteers marked with the letter *M*, even with the bringers up of the right hand file of the Diviſion of Pikes marked with

with the Letter *I.* Then command them to turn to their right hands about, and cloſe their ranks and files to their cloſe order. After that, command the two ranks of Muſqueteers ſix in front, and two deep on the left hand of the aforeſaid Diviſion of Pikes marked with the letter *N*, command, I ſay, thoſe two ranks of Muſqueteers to turn to their right hands, and command an Officer to lead them down on the left hand, on the left hand flank of the Diviſion of Pikes marked with the letter *I*, keeping one foot and an half diſtance from the left hand file of the Diviſion of Pikes marked with the letter *I*, until he bringeth the two men that were the right hand men of the two ranks of Muſqueteers marked with the letter *N* even with the bringers up of the left hand file of the Diviſion of Pikes marked with the letter *I.* Then command the two files of Muſqueteers (the which were before ranks) which you have drawn down on the left hand flank of the Diviſion of Pikes marked with the letter *I*, to turn to their right hands about: then command them to cloſe their ranks and files to their cloſe order. The ſame order muſt be obſerved with the four ranks of Muſqueteers, ſix in front and two deep, marked with the letters *R* and *S* on the right and left hand of the left hand Diviſion of Pikes marked with the letter *O*, as is here before ſet down for the four ranks of Muſqueteers marked with the letters *M* and *N.* Then command the four ranks of Muſqueteers marked with the letters *K* and *P* to cloſe their ranks and files to their cloſe order. And theſe words of Command before ſet down will bring the former figure marked with the letters

I K

I K L M N O P Q R S to the order of this figure marked with the figures of 1 2 3 4 5 6 7 8 9 10 11 12.



By theſe words of Command before ſet down, you ſee the Muſqueteers marked with the letters *M N R S P K* in the figure before this former figure, are now brought into this order, as you ſee them in this figure before marked with the figures of 5 6 11 12 9 3 under ſhelter of the Pikes: The Muſqueteers and Pikes being at their cloſe order ſtanding in a readineſs to receive a charge from Horſe, and the Pikes to ſhelter the Muſqueteers every way upon occaſion from the force of the Horſe. The figure marked with the figure 1, is a Diviſion of Horſe, threeſcore in front and three deep, being at their cloſe order. The way how the Muſqueteers ſhall be ſheltred by the Pikes from Horſe, I will here declare unto you: Command the two right hand files, and the two left hand files of the Diviſion of Pikes marked with the figure 2 (the which Diviſion of Pikes is twelve files of Pikes, and ſix deep) to charge to their right, and left hands: the two right

right hand files to the right hand, and the two left hand files of Pikes to the left hand over the ſhoulders of the Muſqueteers on the right and left hand marked with the figures 5 and 6: commanding theſe four files of Muſqueteers marked with the aforeſaid two figures to turn to their right and left hands. When the two right hand files, and the two left hand files of Pikes of the figure marked with the figure 2, are commanded to charge to the right and left hands, then command the other eight files of Pikes of the figure 2, which have not as yet charged their Pikes, I ſay, command the three firſt ranks of thoſe eight files to charge their Pikes to the front over the ſhoulders of the Muſqueteers marked with the figure 3. Then command the three laſt ranks of Pikes of the eight files of Pikes to charge to the reer over the ſhoulders of the two ranks of Muſqueteers marked with the figure 4. And theſe two ranks of Muſqueteers in the reer marked with the figure 4 muſt obſerve to turn to their right hands about, when the Pikes are commanded to charge to the reer.

The ſame Order and words of Command, the which are here ſet down for the right hand Diviſion of Foot, marked with the figures 2 3 4 5 6 7 muſt be obſerved by the Officers of the left hand Diviſion of Foot, marked with the figures 7 8 9 10 11 12. The Muſqueteers which are placed without-ſide of the Pikes marked with the figures 3 4 5 6 9 10 11 12 muſt ſtand ready with their Matches, Cocks, and Pans guarded, and ready to give fire either by one rank

rank at a time, or two ranks, as the Officers ſhall ſee occaſion to command them, which muſt be done after this manner: If you command only the outermoſt ranks to give fire, then muſt you command them to preſent kneeling on their right knees, and command them to level ſo low, that they ſhoot at the Horſe legs, and by that means they will ſhoot clear under the tops of your Pikes being charged. If you pleaſe to command two ranks of Muſqueteers to give fire at one time, the Muſqueteers being ready to preſent command your Pikemen to port their Pikes: then command all your Muſqueteers to preſent, the firſt rank of Muſqueteers kneeling on their right knees, the ſecond rank of Muſqueteers muſt move up cloſe to the firſt rank of Muſqueteers, every Muſqueteer in the ſecond rank ſtepping forward with his right leg within the inſide of their Leaders right legs, and ſtep forwards with their left legs cloſe up by their Leaders left legs without-ſide of their Leaders left legs, and ſo preſent their Muſquets over their Leaders heads. After the Muſqueteers in the firſt rank have thus preſented, command them to give fire; then may you, if occaſion ſerve, command your Pikemen to charge their Pikes again, and your Muſqueteers to make ready again.

But here ſome may object, that if any one of theſe two Diviſions of Foot marked with the figures 2 3 4 5 6 7 8 9 10 11 12 ſhould be charged by Horſe ſeveral ways at once, then the four corners of the Diviſion of Foot will be ill defended, by reaſon that the two outermoſt files of Pikes to the right and left hand are charging to their

right and left hands; ſo by this means they conceive the four corners of the Diviſion of Foot will be left naked for want of Pikes to defend them. To prevent this objection, the Captains, Lieutenants, and Serjeants ought to be placed on the four corners of a Diviſion of Foot with the Muſqueteers, as you ſee them in this foregoing figure, marked with the figure 7. For you muſt underſtand, that each little long ſtroke at the corners of the Diviſion of Foot ſtandeth for an Officer. Now all the Captains that command the Foot on the flanks of each Diviſion of Horſe in a day of Battel ought to have Pikes, and the Lieutenants and Serjeants ought to have Partizans and Halberts of eleven foot in length.

In this Service againſt the Horſe, are two chief things that the Commanders of the Foot who command any Foot amongſt the Horſe in a day of Battel ought to give their Souldiers a ſtrict charge to obſerve: the firſt is, that the Muſqueteers when they are to give fire ſhould always take aim at the Horſes legs. The ſecond obſervation is, that your Pikemen charge their Pikes againſt the Horſes, and not againſt the Horſemen, when the Foot are charged by Horſe, and that your Pikemen charge not their Pikes, until the Enemies Horſes are come within forty paces of your Foot.

If you fight Foot among your Horſe on the flank of your Army, as you ſee them placed in theſe two figures before marked with the letters *H I K L M N O P Q R S*, and the figures

1 2 3 4 5 6 7 8 9 10 11 12. Then you muſt obſerve when your Enemies Horſe come to charge your Horſe, or the Foot on the flanks of your Diviſion of Horſe, that your Diviſions of Horſe move not from the two Diviſions of Foot on their flanks (unleſs your Enemies Horſe be put to the retreat) but to keep an even front, with the two Diviſions of Foot on their flanks, and receive their Enemies Charge, keeping the aforeſaid order. But in caſe your Enemies Horſe rout any one of the Diviſions of Foot on the flanks of any one Diviſion of Horſe, then the Commander of the Diviſion of Horſe, that is to march between two Diviſions of Foot, muſt be in a readineſs to Charge the Enemies Horſe that hath routed his Foot, either with part of his Diviſion of Horſe, or the whole, as he ſeeth occaſion, or as he may with convenience.

That your intention of fighting Foot amongſt the Horſe may not be diſcovered by your Enemy, who hath not been uſed to the like Diſcipline; or at leaſt that he may not know the way and order that you intend to fight your Foot in, let your Diviſions of Foot, which are to fight on the flanks of your Horſe in a day of Battel, as you ſee them in the two former figures: let, I ſay, the two Diviſions of Foot which belong to each Diviſion of Horſe, march in the rear of the Diviſions of Horſe, as you ſee them in the foregoing figure, till they come within Muſquet-ſhot of their Enemies Horſe: then draw up the two Diviſions of Foot, the one on the one flank of a Diviſion of Horſe, and the other on the

other flank of the ſame Diviſion of Horſe in the ſame order as you ſee them in this foregoing figure.

CHAP. XIV.

VVhat Strength each Diviſion of Horſe ought to be from three thouſand to ten thouſand, to fight on the flanks of a Body of Foot in a day of Battel, if you will have no Foot to fight amongſt the Horſe.

IF your ſtrength of Horſe be three thouſand, and if they be to fight on the flanks of a Body of Foot in a day of Battel without Foot to fight amongſt them, then each Diviſion of Horſe ought to be thirty in front, three deep, and ninety in a Diviſion. If your ſtrength of Horſe be four thouſand, then the ſtrength of each Diviſion of Horſe ought to be an hundred and twenty, forty in front, and three deep. If your ſtrength of Horſe be five thouſand, then each Diviſion of Horſe ought to be an hundred and fifty ſtrong, fifty in front, and three deep. If your ſtrength of Horſe be ſix thouſand, or ſeven thouſand, then they ought to be an hundred and eighty in a Diviſion, ſixty in front, and three deep. If your ſtrength of Horſe be eight thouſand, nine thou-

thouſand, or ten thouſand, then ought each Diviſion of Horſe to be an hundred in front, and three deep, and three hundred in a Diviſion.

Your Diviſions of Horſe from ninety to an hundred and eighty (if you have no Foot to fight amongſt your Horſe) ought to charge their Enemies Horſe after this manner. Each Diviſion of Horſe from ninety to an hundred and eighty in ſtrength ought to be ſub-divided into three ſub-diviſions, as is here ſet down, and ſhall be declared unto you by this following figure, marked with the letters *A B C*.

The three ſub-diviſions of Horſe marked with the letters *A B C* are a Diviſion of Horſe of ninety, ſub-divided into three equal ſub-diviſions, being thirty in a Diviſion, ten in front, and three deep. The diſtance of ground between the ſub-diviſion marked with the letter *A*, and the ſub-diviſion marked with the letter *B*, is twenty paces, three feet to the pace. The like diſtance of ground is between the ſub-diviſions of Horſe marked with the letters *B* and *C*: the little ſtrokes

that

that ſtand in the fronts, flanks, and reer of the three ſub-diviſions, ſtand for Officers.

Now when the Van-guard of your Horſe cometh within fifty paces of the Enemies Horſe, let the two ſub diviſions of Horſe marked with the letters *A* and *C* advance towards their Enemies Diviſion of Horſe upon an eaſie trot: and the Officers of the two Diviſions of Horſe muſt be careful that they Charge all together the Diviſion of the Enemies Horſe which they meet with. And when the two ſub-diviſions on the right and left hand marked with the letters *A* and *C* do advance towards their Enemy to charge them, then let the middle ſub-diviſion of Horſe marked with the letter *B* follow after eaſily upon a walking pace. And when the Officer in chief that commandeth the middle ſub-diviſion of Horſe marked with the Letter *D*, ſeeth the other two ſub-diviſions of Horſes marked with the letters *A* and *C* to be mingled with the Enemy; then let him command his ſub-diviſion of Horſe to advance upon a round trot, and charge his Enemy. The ſame order muſt be obſerved by all the Diviſions of Horſes that are but ninety in ſtrength, when they come to charge an Enemy. And the Diviſions of Horſe from ninety to an hundred and eighty in ſtrength muſt obſerve the ſame order in charging their Enemy, as is here ſet down in this Diviſion of Horſe of ninety, marked with the letters *A B C*, if no Diviſions of Foot be to fight amongſt the Horſe.

If you be eight thouſand, nine thouſand, or ten

ten thouſand ſtrong in Horſe, then each Diviſion of Horſe, when you come to fight in Battel, ought to be three hundred in ſtrength: and each Diviſion of Horſe ought to be ſub-divided into five equal ſub-diviſions, as you ſee them in this following figure marked with the letters *D E F G H.*

Reer.

In theſe five ſub-diviſions of Horſe marked with the letters *D E F G H*, there are ſixty Horſes in each ſub-diviſion, twenty in front, and three deep. So that the five ſub-diviſions marked with the letters *D E F G H* are a Diviſion of Horſe of three hundred in ſtrength, ſub-divided into five equal parts, and being at their cloſe order in rank and file: And the little ſmall ſtrokes that you ſee in the flank, reer, and front, ſtand for Officers. The diſtance of ground that is left between the ſub-diviſions marked with the letters *D* and *E* is twenty paces, three feet to the pace. And the diſtance of ground between the ſub-diviſions of Horſe marked with the letters *E* and *F* is twenty paces. The ſame diſtance of ground is between the ſub-diviſions of Horſe marked with the letters *F* and *G*, and *G* and *H*.

If

If you intend to have your Diviſions of Horſe to be three hundred in ſtrength, my opinion is, that each Diviſion of Horſe ought to be ſub-divided into five equal parts, as you ſee them in this figure marked with the letters *D E F G H.* For theſe reaſons a Diviſion of Horſe for three hundred in ſtrength being divided into five equal parts, as you ſee them in this foregoing figure, will take up much more ground in front, than a Diviſion of Horſe that is but three hundred in ſtrength, and not ſub-divided. Now it is one of the chiefeſt advantages that can be taken in a day of Battel, by your Diviſions of Horſe to out-front your Enemies Diviſions of Horſe.

Beſides, a Diviſion of Horſe of three hundred in ſtrength being ſub-divided, as is before ſet down, will be better commanded, and not ſo ſubject to fall into a diſorder upon any occaſion, as a Diviſion of Horſe of three hundred in ſtrength, all in a body.

Moreover, you may charge an Enemy three ſeveral ways with a Diviſion of Horſe of three hundred in ſtrength, being ſub-divided as you ſee them in this foregoing figure; whereas you can charge an Enemy but one way with a Diviſion of Horſe of three hundred in ſtrength, being all in one body.

The firſt of the three ways to charge your Enemy with a Diviſion of Horſe of three hundred in ſtrength, and ſub-divided, is in this manner; when a Diviſion of Horſe thus ſub-divided into

into five equal parts cometh within forty paces of your Enemies Diviſion of Horſe which they are to charge; then let the two ſub-diviſions of Horſe marked with the letters *D* and *H* advance, and charge their Enemies Diviſion of Horſe on the flanks; and then let the other three ſub-diviſions of Horſe marked with the letters *E F G* advance, and charge their Enemy in the front of their Diviſion at the ſame time.

The ſecond way is this, when you come within forty paces of your Enemies Diviſion of Horſe, then command the three ſub-diviſions of Horſe marked with the letters *D F H*, to advance upon a trot, and charge their Enemy: then command the other two ſub-diviſions marked with the letters *E* and *G* to follow upon an eaſie pace, until they ſee that the three ſub-diviſions marked with the letters *D F H* be mingled with their Enemy. Then let the two ſub-diviſions marked with the letters *E* and *G* have order to advance upon a good round trot, and charge their Enemy.

The third way of charging your Enemy, is, to command the five ſub-diviſions of Horſe marked the letters *D E F G H* to charge the Enemy together in an even front. And I account either of theſe three ways better to charge a Diviſion of the Enemies Horſe to rout them, than to charge a Diviſion of the Enemies Horſe with a Diviſion of three hundred Horſe in one Body together, without being ſub-divided.

CHAP. XV.

By the following Figures are declared what Strength each Diviſion of Foot ought to be to Fight a Battel, and Encounter with Foot: and the order that muſt be obſerved for doing the ſame; and how they ſhall eaſily, and readily be in order to defend themſelves againſt the charge of any Horſe.

FOR Field-Service you muſt obſerve to have as many Pikes as Muſqueteers amongſt your Foot; and each Diviſion of Foot ought to be two hundred eighty eight in ſtrength, half Pikemen, and half Muſqueteers; and you muſt rank your men but ſix deep: ſo that in the Diviſion of two hundred eighty eight men, there will be four and twenty files of Pikes, and four and twenty files of Muſqueteers, ſix deep. The order that they muſt be drawn into, to be in readineſs to fight with Foot, and to defend themſelves againſt Horſe, ſhall be declared unto you by the following figures.

But in the firſt place I will ſhew you the order that theſe four and twenty files of Pikes, and four and twenty files of Muſqueteers muſt be drawn into. The firſt order that the aforeſaid

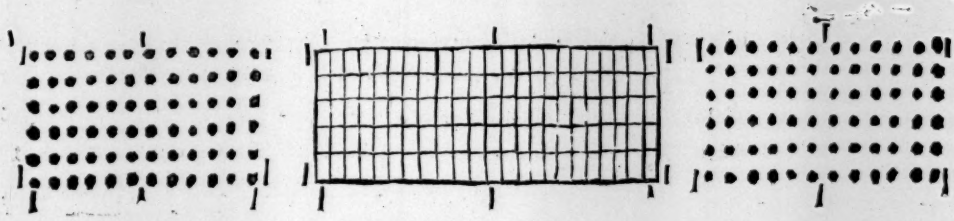
two

two hundred eighty eight men muſt be drawn into, is, as you ſhall ſee them in this following figure, marked with the figures 1 2 3; and the diſtance that they are at in rank and file is their Order.

Front.

Muſqueteers. Pikes. Muſqueteers.

3 1 2



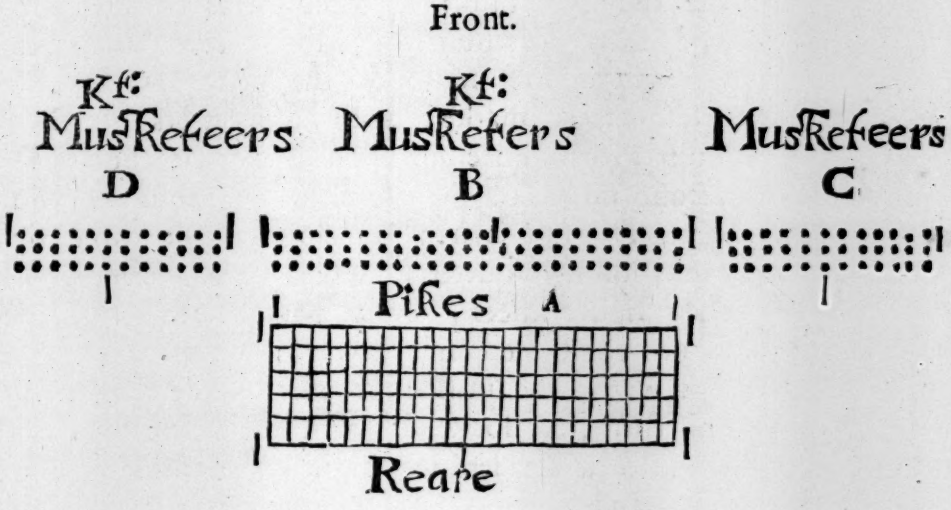
Reer.

The figure marked with the figure 1 is a Diviſion of Pikes of four and twenty files, ſix deep. The ſix ranks of ſmall pricks marked with the figure 2 are a Diviſion of Muſqueteers conſiſting of twelve files, ſix deep: And the like are ſix ranks of pricks on the left hand of the Diviſion of Pikes figured with the figure 3.

Now the way that you muſt obſerve to bring theſe four and twenty files of Pikes, and four and twenty files of Muſqueteers into the order, as you ſee them in the following figure marked with the letters *A B C*, is by theſe words of Command.

Command the three firſt ranks of Muſqueteers of the two Diviſions of Muſqueteers marked with the figures 2 and 3 to march forward, till the laſt ranks of Muſqueteers of both the Diviſions of Muſqueteers have marched twelve feet beyond the firſt ranks of Pikes. Then command them to ſtand, and cauſe the three ranks of Muſqueteers at the left hand to turn to their right hands, and the three ranks of Muſqueteers on the right hand to turn to their left hands. Then command them to march forward, and joyn together before the Diviſion marked with the letter *A*. Then command the Muſqueteers, which before you commanded to turn to their left hands, now to turn to their right hands; and thoſe Muſqueteers that you commanded before to turn to their right hands, command them to turn to their left hands. Then file the Muſqueteers that you have brought before the front of the Pikes, even with the files of Pikes. Then command the other ſix ranks of Muſqueteers on the right and left hand of the Diviſion of Pikes to advance forwards, and front with the Muſqueteers, which are in the front of the Pikes, leaving eighteen foot diſtance between the Diviſions of Muſqueteers, marked with the letters *C* and *B*, and *B* and *D*, as you ſee them in this following figure, marked with the letters *A B C D*; and the diſtance that they are at in rank and file is their Order.

Front.



The figure marked with the letter *A* is a Diviſion of Pikes conſiſting of four and twenty files, ſix deep. The three ranks of ſmall pricks marked with the letter *B* are four and twenty files of Muſqueteers, three deep. The three ranks of ſmall pricks marked with the letter *C*, are twelve files of Muſqueteers, three deep: the like are the three ranks of Muſqueteers marked with the letter *D*. And the Muſqueteers ſtanding in this order as you ſee them in this foregoing figure, marked with the letters *B C D* are now in a readineſs to give fire on an Enemy. Now the way that the Muſqueteers muſt obſerve in firing on their Enemy is thus: Command both your Pikemen and Muſqueteers to ſhoulder their Arms, and march together in the ſame order as you ſee them in the foregoing figure, marked with the letters *A B C D*, commanding the three Diviſions of Muſqueteers, marked with the letters *B C D* to make ready; and when

when the Muſqueteers are all ready, command the two firſt ranks of Muſqueteers in the aforeſaid three Diviſions of Muſqueteers to preſent. The three firſt ranks of the three Diviſions of Muſqueteers marked with the letters *C B D* muſt preſent kneeling upon their right knees. The ſecond ranks of the aforeſaid Diviſions of Muſqueteers muſt march up cloſe to the three firſt ranks of Muſqueteers which are preſenting on their right knees; every Muſqueteer in the ſecond rank ſtepping forwards with their right legs within the in-ſide of their Leaders right legs, and then ſtep forwards with their left legs cloſe up to their Leaders left legs, without-ſide of their legs, and preſent their Muſquets over their Leaders heads in their firſt ranks. And after the two firſt ranks of Muſqueteers of the three Diviſions of Muſqueteers marked with the letters *C B D* have thus preſented, command them to give fire together. And when theſe Muſqueteers before ſpoken of have fired, let the three firſt ranks of the three Diviſions of Muſqueteers marked with the letters *C B D* remain kneeling on their right knees. Then command the ſecond ranks of the three Diviſions of Muſqueteers to kneel upon their right knees, as cloſe to their Leaders right knees as they can. Then command the laſt ranks of the three Diviſions of Muſqueteers marked with the letters *C B D* to march up to their Leaders, ſtepping with their right legs within-ſide of their Leaders right knees, and ſtep forwards with their left legs without ſide their Leaders left legs, and preſent their Muſquets over their Leaders heads, and then command them to give

fire,

fire. After the laſt rank of the three Diviſions of Muſqueteers marked with the letters *C B D* have fired, command the two firſt ranks of Muſqueteers of the aforeſaid three Diviſions of Muſqueteers which are kneeling, to ſtand up; commanding your Diviſion of Muſqueteers marked with the letter *A*, and the three Diviſions of Muſqueteers marked with the letters *C B D* to march on eaſily, and make ready again, and when they are ready, let them give fire in the ſame order as they did before. This order of marching and giving fire muſt be obſerved by all the other Diviſions of Foot, that are to fight in the Body of an Army.

Or if you approve not of the way of Muſqueteers firing, as is here ſet down, you may ſubdivide them after the old manner, and ſo command them to give fire.

The order that this Diviſion of foot marked with the letters *A B C D* muſt obſerve to defend themſelves, againſt Horſe is after this manner, as you ſhall ſee them placed in the next figure, marked with the figures 1 2 3 4 5 6 7. And the way to bring the three Diviſions of Muſqueteers, and one of Pikes marked with the letters *A B C D* to the order of the figure following, marked with the figures 1 2 3 4 5 6 7 is done after this manner.

You muſt command the laſt rank of Muſqueteers, of the Diviſion of Muſqueteers marked with the letter *B*, to turn to their right hands; then com-

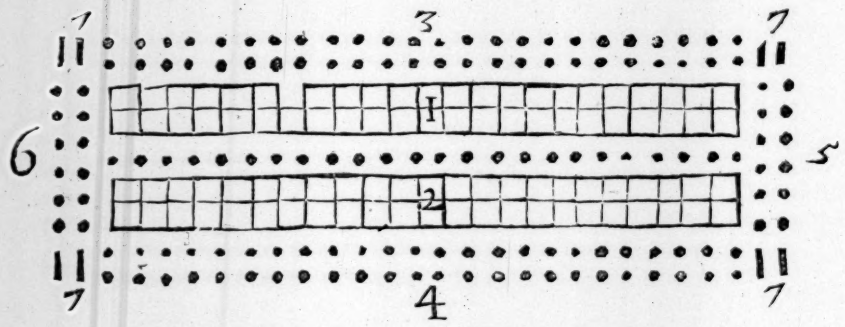
command an Officer to draw them away on one ſide of the right hand file of the Pikes, and draw them in between the third and fourth ranks of Pikes marked with the letter *A*. Then command your Pikemen to advance their Pikes, and cloſe their files, and ranks to their cloſe order. Then command the Diviſion of Pikes to advance forward, till they come within three feet of the laſt rank of Muſqueteers which are in the front of the Pikes. Then command the two laſt ranks of the Diviſion of Muſqueteers marked with the letter *C*, to turn to their left hands. Then command the two laſt ranks of the Diviſions of Muſqueteers marked with the letter *D* to turn to their right hands. Then command two Officers to lead theſe four files of Muſqueteers (which were before four ranks) into the reer of the Pikes marked with the letter *A*; the which four files are there to meet and joyn together in the reer of the Pikes. Then command thoſe Muſqueteers which did before turn to their left hands, to turn to their right hands; and thoſe Muſqueteers which before turned to their right hands, to turn to their left hands. Then command the firſt rank of Muſqueteers, which is only left of the Diviſion of Muſqueteers marked with the letter *C*, to turn to their left hands. Then command an Officer to lead them down cloſe on the out-ſide of the right hand file of the Pikes; and when the Officer hath brought the Leader of the file of Muſqueteers right againſt the bringer up of the right hand file of Pikes, command the file of Muſqueteers to ſtand. Then command the half file of that file of Muſqueteers to double his front to the left hand. Then command

mand thoſe two files of Muſqueteers to turn to their right hands about. Then command the firſt rank which is left of the Diviſion of Muſqueteers marked with the letter *D*, to turn to their right hands, commanding an Officer to lead them down cloſe on the out-ſide of the left hand file of the Pikes: and when the Officer hath brought the Leader of the file of Muſqueteers right againſt the bringer up of the left hand file of the Pikes, command the file of Muſqueteers to ſtand. Then command the half file of that file of Muſqueteers to double his front to the right hand. Then command thoſe two files of Muſqueteers to turn to their right hands about. Then command the Muſqueteers which have not as yet cloſed their ranks and files, to cloſe their ranks and files to their cloſe order, and file and rank even with the Pikes.

This which is here ſet down is the readieſt, and eaſieſt way to bring the former figure marked with the letters *A B C D* unto the order of this figure following, marked with the figures 1 2 3 4 5 6 7. And this Diviſion of Foot is now in a readineſs to withſtand the charge of any Horſe.

Foot.

Front.



Reer.

The figure marked with the figure 1, is a Diviſion of Pikes, conſiſting of four and twenty files, and three deep. The figure marked with the figure 2, is a Diviſion of Pikes of the like number that the figure 1 is. The two ranks of ſmall pricks in the front of the Pikes, figured with the figure 3, are two ranks of Muſqueteers, having four and twenty in a rank. The two ranks of ſmall pricks in the reer of the Pikes marked with the figure 4, are two ranks of Muſqueteers, having four and twenty in a rank. The two files of pricks on the right hand of the Diviſion of Pikes, marked with the figure 5, are two files of Muſqueteers, ſix deep: and the like are the two files of pricks on the left hand of the Diviſion of Pikes, marked with the figure 6. The little ſtrokes at the corner of the Diviſion of Foot,

Foot, marked with the figure 7, ſtand for Officers. And the rank of ſmall pricks between the two Diviſions of Pikes marked with the figures 1 and 2, are one rank of Muſqueteers conſiſting of four and twenty Muſqueteers in number.

You ſee in this figure marked with the figures 1 2 3 4 5 6 7, the Muſqueteers ſtanding under the ſhelter of the Pikes, the Pikes and the Muſqueteers being all at their cloſe order, and in a readineſs to receive a charge from Horſe; and the Pikes ſheltering the Muſqueteers every way upon occaſion from the force of the Horſe.

Now the way how theſe Muſqueteers and Pikemen ſhall defend themſelves againſt Horſe, I will here declare unto you. If you perceive your Enemies Horſe to divide themſelves into four parts to charge any one Diviſion of Foot which is placed in this manner as you ſee them in this foregoing figure: then command the two right hand files of Pikes, and the two left hand files of Pikes of the ſix ranks of Pikes marked with the figures 1 and 2, to charge to their right and left hands over the ſhoulders of the Muſqueteers on the right and left hand, marked with the figures 5 and 6. Command alſo the four files of Muſqueteers, marked with the aforeſaid two figures, to turn to their right and left hands. When the two right hand files of Pikes are commanded to charge to their right and left hands, then command the other twenty files of Pikes in the firſt three ranks of Pikes, marked with the figure 1, to Charge to the front over the ſhoulders of the Muſqueteers, mar-

ked with the figure 3. Then command the twenty files of Pikes, marked with the figure 2 to Charge to the reer over the ſhoulders of the two ranks of Muſqueteers in the reer marked with the figure 4. And the aforeſaid Muſqueteers muſt obſerve to turn to their right hands about, when the Pikes are commanded to charge to the reer.

The Muſqueteers which are placed without-ſide of the Pikes, marked with the figures 3 4 5 and 6, muſt ſtand ready with their Matches, Cock, and Pans guarded, and to be ready to give fire either by one rank at a time, or two ranks, as the Officers ſhall ſee occaſion to command them; the which muſt be done after this manner. If you command only the outermoſt ranks of Muſqueteers to give fire, then muſt you command them to preſent kneeling on their right knees, and command them to level ſo low with their Muſquets, that they may ſhoot at the horſes legs; by that means they will ſhoot clear under the tops of your Pikes being charged. If you pleaſe to command two ranks of Muſqueteers to give fire at one time, then as ſoon as the Muſqueteers are ready to preſent, command your Pikemen to port their Pikes: then command all the Muſqueteers without-ſide of the Pikes to preſent, where the firſt ranks of Muſqueteers are to kneel on their right knees; then the ſecond ranks of Muſqueteers muſt move up cloſe to the firſt ranks of Muſqueteers, every Muſqueteer in the ſecond ranks ſtepping forwards with their right legs within the in-ſide of their Leaders right legs; then they muſt ſtep forwards with their left legs cloſe up by their Leaders

ers left legs, without-side of their Leaders legs, and preſent their Muſquets over their Leaders heads in the firſt rank. When the Muſqueteers have thus preſented, command them to give fire. And if Horſe charge a Diviſion of Foot which ſtand in the ſame order that this Diviſion of Horſe doth, marked with the figures 1 2 3 4 5 6 7, You muſt command your Pikemen to charge again, and be careful to place the Captains, Lieutenants, and Serjeants of the Diviſion on the four corners of the Diviſion, as you ſee them in the foregoing figure marked with the figure 7.

CHAP. XVI.

Some Obſervations concerning the Marching of an Army.

YOU muſt be careful before you march with your Army into the Field, to ſee your Souldiers well Cloathed, well Armed, and well Diſciplined; and that you be ſtored with Shooes and Stockings for the March, and alſo with Ammunition, Bread, and Mony. If you be not careful of this, you will ſoon bring your Army to ruine. You muſt alſo have a great care of thoſe Souldiers which fall ſick, or are hurt, upon a March; for this alone will not only encourage Souldiers to undergo any danger, or labour, but by

by it you will win their affections ſo, that they will never forſake you.

You ought to know the nature of the Country, the quality of the ways, the compendiouſneſs of turning, the nature of Hills, and the courſe of Rivers, through which you are to march. And the beſt way to know theſe things is by good Guides, and good Maps: For he that leadeth an Army by an unknown and undiſcovered way, and marching blindfold upon uncertain adventures, is ſubject to many caſualties, and diſadvantages: Let every Commander therefore perſwade himſelf that good Diſcoverers are as the eye of an Army, and ſerve for lights in the darkneſs of ignorance, to direct the reſolutions of good providence, and to make the path of ſafety ſo manifeſt, that he need not ſtumble upon caſualties: For that which a General ſhould chiefly obſerve upon a March, is firſt *Safety*, and next *Convenience*. If you March into a Country which is hard to enter, and which hath but few paſſages, whereby to enter into it, you muſt force one; and before you go farther, you muſt there fortifie, as well to aſſure your way for your neceſſaries, as for your retreat. For a General muſt be careful never to March into any ſuch place, where his Enemy may be able to cut off his Proviſions, or his Retreat.

It is moſt convenient and ready to have your Diviſions of Horſe and Foot to march at the ſame ſtrength, or ſome ten or twelve men more in a Diviſion, than you intend to fight them; by which means your Army will be much more ready upon any

any occaſion to be imbattelled: And your Officers and Souldiers being uſed to march with their Diviſions in the ſame ſtrength and order as you intend to fight them, will not be ſo apt to be in a diſorder, as that Army that doth not uſe to march with their Diviſions of Horſe and Foot at the ſame ſtrength as they intend to fight them.

Your Regiments of Horſe and Foot ought to be divided into Brigades, your Foot into three Brigades, and your Horſe into ſix Brigades, if you be twelve Regiments of Horſe ſtrong, or above. It is moſt neceſſary to uſe your Brigades, and your Diviſions of Horſe and Foot to march in Battalia when time and ground will give leave; for otherwiſe you will not be able to march three hundred paces in the view of an Enemy with your Brigades imbattelled, but your Diviſions of Horſe and Foot will be apt to loſe their diſtances, and by conſequence will be moſt apt to fall into a confuſion.

You muſt be careful to be furniſhed at the leaſt at every quarter with three Guides: If you be to march in the night, you ought to have ſix.

Before you ſet forwards, your Guides muſt be agreed upon the way which they will take: There muſt alſo be a Captain of the Guides, a man of ſpirit, and vigilance, and one that may take care to get Guides from place to place. You muſt be careful to carry with you the Maps of the Country, through which you are to march.

The

The beſt way to keep your men from ſtraggling upon a march, when they pretend to go out of their ranks and files to drink, or to eaſe themſelves, is this; let them have command to leave their Pikes or Muſquets with their Camerades; and the Lieutenant and Serjeant ought to ſee this order obſerved.

You ought upon a march to ſend out ſome parties of Horſe or Foot, according as the ſituation of the Country, and the ſtrength of the Enemy requireth, in the Van-guard and flanks of your Army, to diſcover and ſearch for Ambuſhments, and parties of the Enemy, which will be always apt to attend upon an Army for booties.

When you come to march with your Army through any Woody Country, then you ought to have looſe Wings of Muſqueteers to march on the flanks of your Army, ſome Muſquet-ſhot off from the Body of your Foot, to keep ſmall, or great parties from firing on your main Body. And in ſuch places you ought to have a ſpecial care that your Baggage be well guarded on the flanks; and that your Scout-Maſter and Spies do bring you intelligence daily.

It is moſt neceſſary when you march, to make an halt once in a day for the eaſe of your Souldiers, and relief and eaſe of your Carriage-Horſes, in ſome convenient place where is both Horſe-meat and water.

It is very fit you give orders to your Pioners to

to make you three ways on each ſide of your Carriage way, that is, ſix ways beſides your Carriage-way, or as many as conveniently the ground and places through which you are to march with your Army will give way. So by this means the one half of your Army may march on one ſide of your Carriages, and the other half on the other ſide of your Carriages. By marching in this order your train will be the ſhorter, and a leſs guard will ſerve to guard the reer of your Waggons, by reaſon the main body of your Army will be ſo near the reer of your Waggons. And alſo your Army will march much the nearer together, whereby you will the ſooner draw them into order to fight upon any occaſion. Likewiſe you will be able to march ſafer and farther in a day, than you can when your Army marcheth but in one or two ways.

If it fall out ſo that you muſt be conſtrained to march with your Army and Baggage in one Highway, or over one Bridge, the Conductor that hath the Conducting of the Van-guard of your Train, ought to know upon ſuch an occaſion what Regiment his Train of Artillery is to follow; and that he have a ſpecial care not to march into any narrow paſſage before thoſe Troops he is to follow.

If you have any occaſion to ſend out any parties to provide Proviſions for your Army againſt night, you ought to give order unto thoſe Officers to keep their Souldiers from ſtragling; for ſuch overſights do many times bring great incon-

veniencies to an Army. Therefore Officers ought not at any time to ſuffer their Souldiers to ſtraggle, nor ſlacken the ſeverity of Military Diſcipline, though they believe themſelves far from an Enemy, and in great ſecurity. For Souldiers are commonly leaſt ſecure when they think themſelves moſt ſecure. Security is commonly the fore-runner of miſery.

In marching with an Army to fight with your Enemy, you ought to carry with you as much Bread, Cheeſe, or Cattel and Salt as you may conveniently; for it is impoſſible that Souldiers ſhould find Bread to be bought every where: And if it be poſſible to be done with ſafety, lie with your Army between your Enemy and his Proviſions, being better furniſhed with Proviſions than your Enemy: For lying near your Enemy with ſafety, and without fighting, will in the end ſurely diſcourage your Enemies Souldiers by their neceſſities, or force them to fight upon diſadvantages, or at laſt put them to a retreat: And then the Victory is more then half won, if any of theſe things happen unto your Enemy.

An Army may be divided into four parts, namely, the Cavalry, the Infantry, the Artillery, and the Victuals.

If you March with Cannon, and ſuffer an Enemy to approach too near you without intrenching, it is impoſſible for you to avoid fighting or loſing your Cannon. Therefore a General ought to know how to make uſe of it at his advantage, and avoid the

the inconveniences of it by his foreſight, either by intrenching, or retreating in time, if he hath no mind to hazard a Battel.

There is nothing that bringeth ſo much diſorder to an Army upon the March as the Baggage: And therefore it is highly neceſſary to reduce it to the ſmalleſt proportion that may be: and the Waggon-Maſter-General ought to make a review of it every morning when the Army marcheth, for otherwiſe it will daily increaſe.

Your Marſhal-General ought not to ſuffer many Women, or Boys to March with an Army, whereby Sickneſs and Famine get into the Army.

If your Army be of any great ſtrength, then may you march with it in two parts, each part about two or three miles diſtant from the other; if you have no Enemy near you that is able to affront you. And if you can march in this order with ſafety, you will march much the farther in a day, and your Souldiers will be much better provided for at night.

If you are to march with an Army into a Country where you think the Inhabitants will flie before you, then ought you to carry Hand-mills, and Baking-pans along with you, that each Company upon occaſion may be able to grind their own Corn, and provide themſelves Bread.

It is very fit and neceſſary, if you have any occaſion to paſs over any Rivers that are not ford-

able, in your march, to carry with you Boats or Punts to make a Bridge of.

It is moſt neceſſary likewiſe to carry with you Caltrops into the Field, the which are very convenient at times to be thrown in places, as either into Fords or narrow paſſages, where Horſes are to paſs to ſpoil them: and they are of eſpecial uſe in a night upon a Retreat, to be thrown into narrow paſſages, or by day into dirty or watry paſſages. Thoſe Caltrops that are made for Fords, muſt be made ſomewhat more weighty than thoſe that are made for other paſſages, that the water may not be able to carry them away.

CHAP. XVII.

Some Obſervations for the Quartering of an Army at Night upon a March, and for the ſetting out of their Guards to ſecure their Quarters.

YOU ought to give a ſtrict charge to the Quarter-Maſter-General of the Foot, to have a ſpecial care (if it be poſſible) to Quarter your Infantry upon a march, and your Train of Artillery in places that are naturally, or caſually well fortified, as with incloſures, or in places compaſſed with Rivers, or Moors; and where there may be Proviſions for your Carriage-Horſes, or where Proviſions may conveniently be brought in by the Country-people for them. This way of Quartering your Army muſt be carefully obſerved, if any Enemy of ſtrength be near you that may be able to do you any affront upon any of your Quarters. If any Enemy of ſtrength be near you, you ought to Quarter your Army as near together as poſſibly you can; but by all means if it be poſſible, avoid Quartering your Infantry in the Campagnia.

The time of lodging an Army is a dangerous time to be aſſaulted in, becauſe the Army is then tired, and every man (deſirous to be lodged) haſteneth to the quarter in diſorder, which is a thing hard

hard to avoid: And therefore the General and the Officers ought to have a ſpecial care to avoid this danger. The which I conceive to be done beſt this way. Thoſe Horſe and Dragoons that you ſend before for a Guard with the Quarter-Maſter-General, and his attendants for the providing of Quarters, as ſoon as thoſe Troops ſhall come to the place where the Army ſhall quarter, they ought to ſend out ſmall Parties, and Scouts ſeveral ways to diſcover, and to ſearch for ambuſhments; and the remainder of the Horſe and Dragoons ought to keep guards in ſome convenient places about the Quarters till night: And ſuch Foot Souldiers as you ſend before to preſerve the Foot Quarters from being pillaged, ought to be two out of every Company, a Pikeman, and a Muſqueteer; and a Serjeant out of each Regiment to command them: and two Lieutenants and a Captain out of the three Brigades of Foot, to Command all the men that are appointed to preſerve the Foot Quarters from being pillaged by their Camerades. Theſe Souldiers and Officers ought to have their Orders over night for the ſame, that they may be in a readineſs in the morning to march with the Pioners as a guard for them: for the aforeſaid Souldiers may moſt conveniently do theſe two ſervices under one.

The Carriages that belong to the Horſe Officers (eſpecially the Carriages for ſuch Officers as ſhall be lodged in Out-Quarters with the Foot Carriages) the Marſhal of the Field, the General of the Artillery, the Treaſurer of the Army, the Commiſſary of the Victuals, the Quarter-Maſter-General,

General, the Secretary of the Council of War, the Provoſt-General; all theſe ought to be lodged within the General Quarter.

The Marſhal of the Field, the Major-Generals of the Horſe and Foot, and the Majors of the Brigades both of Horſe and Foot, ought to go before to the Quarters to view the moſt convenient places for Guards for the ſecurity of their Quarters. The Serjeant-Major of the Regiments both of Horſe and Foot that are aſſured to have Outwatches at night, ought to go ſomewhat before their Regiments to know of the Major of the Brigade where the places are that the Companies of their Regiments ſhould guard that night, with their Orders for the ſame. Then the Serjeant-Majors of theſe Regiments, that are to have the Outwatches for the night, knowing what Guards the Companies of the Regiments ſhould have that night, and having received all their Orders for the ſame, ought to meet their Regiments before they come to the Quarters, that they may conduct the Companies of their Regiments that are to watch at night, the neareſt way to their Guards; ſeeing it is a great trouble for Companies that are tired, to remove from their Regiments to their Guards, having laid down their Arms, and ſetled themſelves for reſt.

After the Marſhal of the Field, or the Major-General of the Foot, or both, have had a ſpecial care of ſecuring the Quarters of the Infantry from all danger of any ſudden ſurpriſes, by placing good Guards in convenient places; then if the Infantry

fantry be quartered all together, the General or the Marſhal of the Field, or the Serjeant-Major-General of the Infantry, one of them ought to go every night one round or two: beſides, there ought to be appointed a Colonel to go the Grand Round every night, and he ought not to fail to go two Rounds. And in my opinion it is fitter for all Grand Rounds, or any other Rounds, to give the Word, than to receive it.

But if it falleth out ſo, that you Quarter your Brigades of Foot one from another, then the Major-General of the Foot muſt truſt to the care and judgment of the Colonels and Majors of the Brigades for the ſetting out of their Guards, and going the Rounds, unleſs it be that Brigade with which he lodgeth himſelf. The Major-General ought always in ſuch a caſe to give order to the Colonels of the Brigades, that they appoint an Officer of the Field for the Grand Round, and that he fail not to go two Rounds at the leaſt: There muſt be likewiſe appointed a Captain of the watch to every Regiment that lieth within the Quarters, to ſee that the Corporals and Sentries at each Colours keep good Watch; and that the Souldiers of each Company of his Regiment within the quarter keep good order, and that the Souldiers within his Quarters make no fires in any places, where they may endanger the firing of the Quarters.

I will now ſay ſomething concerning the Quartering of the Horſe, which you ought always to Quarter without-ſide of the Foot. The Horſe-Quarters ought to be as near together as conveniently

ently you may lay them, that upon all occaſions they may be able to aſſiſt one the other upon any ſudden falling on their Quarters in the night. And that you may Quarter your Horſe the nearer together, you may by ſending out parties of Horſe before, cauſe the Country people to bring in Proviſions both for your Horſe-men, and their Horſes into the chief Villages or Towns where you are to Quarter your Horſe; the which the Country people will moſt willingly do, rather than to be troubled with the Quartering of any Horſemen; and by this means your Troops will lodge much the ſafer.

It is one of the hardeſt things that I do know that belongs to Horſe-Service, for a Commander of Horſe judiciouſly to order his Horſe Guards for the ſecuring of his Quarters at night. And the beſt way for doing the ſame, as I conceive, is this, you ought to lodge in your outermoſt Quarters of Horſe which lie next your Enemy. And before you draw your Horſe into their Quarters, you ought to ſet out your Guards, and ſend out of your Guards ſome ſmall parties ſeveral ways; and when thoſe that you have ſent out are returned, you ought to ſend out more, to diſcover any parties of your Enemies, and to ſearch for ambuſhments. Your Dragooners that are Quartered in your out-Quarters of Horſe, ought to guard the High-ways that come into your Quarters. And againſt ſuch guards of the Dragoons as you keep upon the High-ways, you ought to Barricado your High-ways up with ſomething or other that may not eaſily be removed; and let the Pioners make

you another way for the relief of your Guards from your quarters. And therefore I hold it moſt convenient to have an hundred Pioners to be horſed, which always ſhould be lodged in the outermoſt Horſe-quarters next the Enemy, for the ſtopping up of ſome paſſages, and for the making of others that may be unknown to the Enemy: Likewiſe upon the ways which are made by the Pioners you ought to have a Guard of Dragooners: and all your Dragooners ought to have Swine-feathers, the which the Dragooners ought to ſtick up without ſide of the Avenues; and in the Avenues that the Pioners have made for the relief of the Out guards of Horſe.

One Guard is not ſufficient to give the Alarm at that diſtance, whereby you may have leiſure to put your ſelf in order to fight: wherefore you ought always to have half your Horſemen to watch on horſe-back one half of the night, and the other the other half of the night: and when the one half of your Horſemen watcheth, the other half of your Horſemen muſt be ſaddled, and the Officers and Horſemen be in their cloaths. Your innermoſt Horſe-quarters (which lie ſafer than your outermoſt Horſe-quarters) when the one half of your Horſemen watcheth, the other half may be unſaddled; but your Officers and Horſemen muſt not lie out of their Cloaths. And the Officers in each quarter ought to have order upon any alarm, that as ſoon as they are drawn in Arms they ſhould make all the haſte they can to aſſiſt their Camerades that are aſſaulted in their quarters; and that an Officer in Chief in each quarter go two or three

three Rounds in a night. And this order of watching ought to be observed in your Horse-quarters, if you lie within twenty miles of any Garrison of your Enemy that is able to affront any of your quarters.

The General of an Army ought always upon a March to give out two words at night, the one for a Watch-word, and the other for a Field-word. The Officers ought to receive both, but the Souldiers only the Field-word; the which ought not to be given to the Souldiers, unless there be an Alarm.

Towns and Villages that lie in a Champaign Country are most fit for Horse-quarters: the Towns and Villages that lie in an inclosed Country are most fit for Foot-quarters.

CHAP. XVIII.

Some certain Observations to be kept in the fighting of Battels, and some Directions for the Imbattelling of an Army.

WE may observe two especial ends which the great Commanders of the World have ever striven to atchieve, Victory, and Over-mastering their Enemies. The latter by cunning, and wisely carrying of a matter before it come to trial by blows: the former by forceable means, and fighting a Battel: the one proceeding from Wisdom, and the better faculties of the soul; the other depending upon the strength and abilities of the body. The latter end is principally to be embraced, as the safest course in these uncertain and casual events. For that which resteth upon corporal strength, and maketh execution the way to a conclusion, is full of hazard, and little certainty. And yet of all the actions of War, the most glorious and most important is to know how to give Battel: For the art of imbattelling an Army hath always been esteemed the chiefest point of skill in a General (for skill and practice do more towards the Victory than multitude) seeing the gaining of one or two Battels acquireth, or subverteth whole Empires, Kingdoms, or Countrys: And therefore a General of an Army

my ought to know all the advantages which may be taken in a day of Battel; and how to prepare againſt diſadvantages which may happen. Concerning both which I will here give you my opinion.

Advantages bring hope of Victory, and hope conceiveth ſuch ſpirits as uſually follow when the thing which is hoped for is effected; whereby the courage becometh hardy, and reſolute in Victory; and where the Souldiers fear no overthrow, they are more than half Conquerours. So on the other ſide, diſadvantages and danger breed fear, and fear ſo checketh valour, and controuleth the ſpirits, that Vertue and Honour give place to diſtruſt, and yield up their intereſt to ſuch directors as can afford nothing but diffidence and irreſolutions.

It is moſt neceſſary for a General in the firſt place to approve his Cauſe, and ſettle an opinion of right in the minds of his Officers and Souldiers: the which can be no way better done, than by the Chaplains of an Army. Alſo a General ought to ſpeak to the Colonels of his Army to encourage their Officers with a deſire to fight with the Enemy; and all the Officers to do the like to their Souldiers. And the better to raiſe the common Souldiers ſpirits, let their Officers tell them that their General doth promiſe them, if they will fight courageouſly with their Enemy, and do get the day, that they ſhall have, beſides the Pillage of the Field, twelve-pence apiece to drink, to refreſh their ſpirits when the buſineſs is done. The which I am confident will make the common men

men fight better, than the beſt Oration in the world.

It is very fit a General ſhould uſe his beſt endeavour to underſtand the ſtrength of his Enemies Horſe and Foot, and how they are armed both with Offenſive and Defenſive Arms, and what proportion of Pikes they have to their Muſqueteers. Alſo he muſt endeavour to know by name and place the Chief Officers of his Enemies Army, and their abilities in Martial Affairs; by the which means he may gueſs where the Chief Commanders do command in a day of Battel: So he may eaſily know how to place his Army beſt for his own advantage. This if carefully obſerved will be of very great uſe.

You ought to know that novelties, and unexpected adventures are very ſucceſsful in Battels, and in all Martial deſigns.

A General muſt be careful never to hazard a Battel with his Enemy, when he findeth him imbattelled in a ground of advantage, although he do out-number him much with men: The ſafeſt way then will be to fight with him by Famine: For although a Generals Fortune ſhould be generally ſubject to his will, yet by his wiſdom he ſhould rather follow Reaſon than Fortune in ſuch caſes.

A General ought to be careful when an Enemy approacheth near him, to ſend out ſome two or three knowing Officers with a good ſtrong party of Horſe and Dragooners to make good the Horſe-

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mens retreat upon occaſion) whereby to diſcover the Enemies ſtrength, and order of his March: and that they take notice of what advantages may be taken of the ground which lieth between them. And the party that is ſent ought to have order, if it be poſſible to take ſome ſtragglers, that the General may the better underſtand the ſtrength, and condition of his Enemies Army.

If you intend to give Battel, you muſt have regard to theſe principal things that follow: You muſt never ſuffer your ſelf to be forced to fight againſt your will; and never to fight your Souldiers when their ſpirits are either diſmayed, or caſt down. If you reſolve to fight with your Enemy, then you ought to chooſe a place for the Battel fit for the quality, and number of your Souldiers. For if you fear to be incloſed by a great number, you ought to ſhelter your flanks, or at leaſt one of them, by the nature of the place, as by a River, Wood, or ſome other thing equivalent: If you be weak in your Cavalry, you muſt avoid the Plains, or fight with Foot amongſt your Horſe, as is ſhewed in the three next Battels: If you be ſtrong in Horſe, you muſt avoid ſtrait paſſages, or incloſed places.

You ought to know that directions are the life of Action, and the ſinews and ſtrength of Martial Diſcipline; and therefore you muſt give punctual orders to your Marſhal of the Field, and your Major-Generals, and Colonels of the Brigades both of Horſe and Foot before they begin to fight: And your Orders ought to be written, if you have time:

time: for after the Battel is once begun, is is impoſſible for a General to give Orders, more than in that part where he is preſent at the ſame time.

That you may know how to place your Diviſions of Horſe and Foot at their true diſtances, you ought to allow unto every Horſeman in the Front of the Diviſions of the Van-guard, and Battel ſix foot of ground in breadth; and to every Foot Souldier in the Diviſions in the Van-guard, and Battel you ought to allow five Foot. Alſo you muſt obſerve, that between every two Diviſions of Horſe and Foot in the Van-guard of your Army to allow an hundred paces of ground in breadth, three feet to the pace: beſides what you allow for the Diviſion in the Battel, which is for the reſerve. You ought likewiſe to allow between the Van-guard of your Horſe-Troops an hundred paces; and between the Van-guard of your Foot an hundred and fifty paces, three feet to the pace. This order muſt be obſerved both in placing the Diviſions of Horſe and Foot, and the Van-guards, Battel, and Reer-guard of your Army; that the formoſt Troops being put to recoil, may not fall upon thoſe which ſhould come up to relieve them, nor the Battel upon the Reer.

You muſt always be careful to place the beſt Regiments either of Horſe or Foot on the Wings of your Army.

The Officers that lead the Diviſions in the Van-guard of a Battel ought to have ſpecial care to ſee that the Diviſions both of Horſe and Foot keep their

their diſtances; but eſpecially the Officers that lead the Diviſions in the Van-guard of your Army on the flanks of your Horſe or Foot, they muſt be extraordinarily careful that they cloſe not with their Diviſions in upon the main Body. I know no one thing that Officers care is more required about, in fighting a Battel, than to ſee that ſuch Diviſions as they Command keep their Diſtances: For let a man conſider how hard a thing it is for an Army that is imbattelled in a Campagnia to march a mile together without loſing their Order. And queſtionleſs it is much harder for an Army to march a mile together in the face of an Enemy, and the Van-guard of the Army continually skirmiſhing to keep their diſtances: And unleſs the Officers of an Army are punctual in obſerving their Orders of keeping their diſtances in marching, it is impoſſible but ſome part of your Army, if not the whole, will be in a confuſion before the Battel be half fought.

It is ſeldom or never ſeen that two Armies that are of any equal ſtrength, and that uſe one kind of Diſcipline, being imbattelled one againſt the other, but the one Army out-fronteth the other upon one of the Wings, and the other Army out-fronteth the other upon the contrary Wing, when both Armies come to encounter. Therefore you ought to give punctual Orders, before the Battel beginneth, to thoſe Chief Commanders that Command on the outermoſt flanks of the Van-guards of the Horſe, that in caſe either of the Wings of Horſe doth out-front his Enemies Wing of Horſe, they ſhould advance eaſily, keeping

their order with that Wing of Horſe which they Command (as ſoon as their Cannon begin to play, and not before) and charge that Wing of Horſe which they do out-front. Command alſo thoſe Diviſions of Horſe that out-flank your Enemies Horſe on the flanks, when they come within a near diſtance of your Enemies Troops, to wheel with their Diviſions ſo, that they may be able to charge the Wing of their Enemies Horſe on the flank, at the ſame time when the reſt of the Horſe chargeth them in the Front. And in caſe you do out-front your Enemies Army on both flanks, either by the advantage of the number of your men, or by the well-ordering of them, then both your Wings of Horſe muſt obſerve the aforeſaid order.

Here you muſt note, that if you fight Foot among your Horſe, your Foot muſt advance with your Horſe, and your Horſe by no means to advance before your Foot, until your Enemies Horſe be put to flight.

But if it falleth out ſo (as moſt commonly it doth) that the one Army be out-flanked upon one Wing, and the ſame Army doth out flank the other Army on the other Wing: if it fortune ſo, that you be out-flanked in one of your Wings of Horſe, then ought the General to give an eſpecial order to the Officers, that that Wing of Horſe which is out-flanked do not advance from the main Body of the Foot, but keep an even front with the Foot, until their Enemies Horſe come up cloſe to them to charge them. And in the mean time

time ſo ſoon as the Officers of either of your Wings of Horſe diſcover that they ſhall be out-flanked, they ought to have order to draw up on the outermoſt flank of that wing of Horſe that is out-flanked, the Reer-Guard of Horſe of the ſame wing of Horſe with all the expedition that may be. For I am confident it is far leſs dangerous to want a Reer-guard in a wing of Horſe, than to be out-flanked by his Enemies Horſe. Likewiſe thoſe Officers that do perceive they ſhall be out-flanked by the Enemies Horſe, ought to have order that if any of their Diviſions of Horſe (which doth moſt often fall out, when they are out-flanked by the Enemies wing of Horſe) do front againſt the Enemies Foot, and not againſt their Horſe, that then they ſhall draw all thoſe Diviſions of Horſe on the outermoſt flanks of the ſame wing of Horſe.

But in the imbattelling of two Armies, if it prove ſo that your Armies are equally fronted (the which ſeldom or never doth happen) then if you have one wing of Horſe that are more confident in their Valour and Reſolution, than you are of the other, let that wing of Horſe charge firſt (for as many hands make light work, ſo the beſt hands make ſureſt work:) and the other wing of Horſe keep in even front with the main body of Foot, until the Enemies Horſe come up to charge them.

You ought to uſe your beſt judgment, and skill to charge your Enemy firſt in that place where you are ſureſt to overcome him: for ſo favourable are mens judgments to that which is already hap-

pened, that the ſequel of every action dependeth for the moſt part upon the beginning.

If it fortune ſo, that either of your wings of Horſe do put to flight either of your Enemies wings of Horſe, then ought the Chief Commander of that wing of Horſe to have order upon the flight of his Enemies wing of Horſe, to ſend but three Diviſions of Horſe after them; the which three Diviſions of Horſe ought to have their Orders before-hand for the ſame, and their Directions what to do. One of the three Diviſions of Horſe that is appointed to follow the routed wing of the Enemies Horſe, ſhould be commanded to be ſub-divided into ſmall ſub-diviſions when they are to follow the execution, about fifteen Horſemen in a Diviſion; and the other two Diviſions of Horſe ought to follow after in order; and keeping their men together without being ſub-divided, that they may make good the Retreat of the other Diviſion of Horſe, which is upon the execution of thoſe Horſe of the Enemy which are fled: And all the three Diviſions of Horſe ought to have order not to follow the Enemy above a mile, and then to return to the Army again, with all the expedition that they may. And all your other Horſe that have put the Enemies wing of Horſe to flight, ought to charge the Enemies Foot with as much ſpeed as they can.

Having ſpoken of ſome advantages that may be taken by the Horſe on the flanks of an Army in a day of Battel (the which are the chiefeſt advantages in winning of a Battel) and how they are to pre-

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pare againſt diſadvantages that may happen: I will now ſpeak ſomething concerning ſome advantages, and ſome diſadvantages that may happen in Foot Service in a day of Battel.

And firſt of the advantages that may be taken by Foot in a day of Battel; the greateſt advantage that can be made uſe of, is by ordering the Muſqueteers ſo, that they may be able readily to skirmiſh with Foot, and to be ſuddenly put in order upon any occaſion to be ſheltered by the Pikes from the Enemies Horſe. Each Diviſion of Foot that fight in the Body of your Army (if you intend to uſe this kind of Diſcipline which is ſet down in this Book) ought to be in ſtrength two hundred eighty eight men, half Pikes, and half Muſqueteers. And each Diviſion of Foot that is to fight amongſt your Horſe, ought to be an hundred forty four men in ſtrength, half Pikes and half Muſqueteers. The way how to order theſe Diviſions of Foot in a day of Battel is ſhewn you in theſe three following Battels. By this way of ordering your Foot, the ſucceſs of a Battel will not wholly rely upon the ſucceſs of the Horſe, as it doth now adays, as we do order our Infantry.

Your Foot being ordered this way as is before ſpoken of, the ſucceſs of a Battel will lie more upon the ſucceſs of the Foot, then upon the Horſe. And I account them (being thus ordered as is here ſet down, and as you ſhall ſee them in theſe three following Battels) a more firm body to truſt to for Victory, than the Horſe. The Horſe likewiſe by fighting of Foot among them become a firmer body

Body, than by fighting Horſe alone. And ſuch as ſhall make trial of this way of imbattelling their Troops, ſhall find it very advantageous unto them in fighting a Battel, and no hinderance at all, but a great furtherance to the Horſe-Service.

If your Field-pieces be of ten or twelve foot in length, and having their full metal, and if you meet with an Enemy whoſe Field-pieces are not ſo long, you will find that you have by it a great advantage of your Enemy. The advantage is this, when you come with your Army and Artillery within ſhot of your Enemies Body of Foot, your Artillery being placed in the Van-guard of your Army, command your Army to ſtand, and your Cannoneers to play with your Artillery upon the Enemy. If your Enemies Field-pieces be no longer than are uſually carried into the Field, you will be able to ſhoot upon your Enemies Body of Foot, a quarter of a mile before your Enemies Artillery will be able to ſhoot at your Body of Foot with any certainty. The which will prove a great advantage to thoſe that ſhall make uſe of it, to be able to out-ſhoot your Enemy a quarter of a mile with your Artillery; and your Enemy to recover that diſadvantage muſt be conſtrained to march a quarter of a mile in Battalia with his Army before he can bring his Artillery to ſhoot to any purpoſe at your Army; the which will prove (if you have good Cannoneers) a great diſheartening, if not a total overthrow to your Enemy.

All the Muſqueteers that march in the Van-guard of an Army in a day of Battel ought to have two pair

pair of Bandaliers furniſhed with Powder and Bullet; and in caſe you have no Bandaliers, let there be provided for each Muſqueteer in the Van-guard of the Army twelve Carthrages, which they ought to carry in their right-hand pockets, and twelve Bullets apiece in their pockets beſides: and each company to carry with them, for the re-furniſhing their Muſqueteers upon occaſion, a Powder-bag full of Powder. Thus ought the Muſqueteers in the Van-guard of an Army to be furniſhed: All the reſt of the Muſqueteers ought to have their Bandaliers furniſhed with Powder, and Bullet; and each Muſqueteer ought to have twelve Bullets apiece in their Pockets; and each company muſt carry with them a Powder-bag full of Powder.

It is very fit likewiſe that you have in each Company ſix good Fouling-pieces, of ſuch a length as a Souldier may well be able to take aim, and to ſhoot off at eaſe; twelve of them being placed in a day of Battel, when you bring a Diviſion of Foot to skirmiſh with an Enemy on the flanks of a Diviſion of Foot; ſix Fowling-pieces on the one flank of a Diviſion of Foot, and ſix on the other flank, as you ſhall ſee them placed in theſe three Battels following. Thoſe Souldiers that carry the Fowling-pieces, ought to have command when they come within diſtance of Shot of that Diviſion of the Enemy that they are to encounter with, that they ſhoot not at any, but at the Officers of that Diviſion.

Likewiſe you ought to have on the flanks of each Diviſion of Pikes, a Souldier with Hand-Granadoes,

nadoes, that if you bring your men to puſh of Pike, they are to fire the Granadoes, and to throw them in amongſt the Enemies Pikemen; which will prove a great advantage, if they be boldly and well thrown.

Unto every Diviſion of Foot in the Battail of your Army you ought to have two Diviſions of Horſe, of forty in a Diviſion, ten in front, and four deep on each flank of each Diviſion of Foot in the Battail of your Army, as you ſhall ſee them in theſe three following Battels. Theſe Diviſions of Horſe will be always in a readineſs to charge the Enemies Foot at all times when the General ſhall think fit.

If you out-flank your Enemies Foot with your Foot, either on the one flank, or both the flanks, let ſo many of your Diviſions of Foot as do out-flank your Enemies Foot, be drawn up on the Enemies flank, and give fire on them: And the Officers in Chief that Command on the flanks of the Van-guard of the Foot, ought to have particular Orders for the ſame, in caſe any ſuch thing ſhould happen: and likewiſe they are to have a ſpecial Order for the keeping of their true diſtances in their advance towards an Enemy.

If you perceive you have more Pikemen in your Army than your Enemy, or if your Pikemen be better armed with Defenſive Arms, or with longer Pikes, and that you have no advantage of him in your Artillery, nor the Enemy in the ground upon which you are to advance; then make what orderly

derly haſt you can, (continually skirmiſhing with your Enemy with the Van-guard of your Foot) to bring your men to puſh of Pike with your Enemy. When you have done that, you muſt give order to the Officers in Chief that Command the Battel of your Army, that they be careful to advance ſo with the Battel to front with the Van-guard of the Enemy, ſome little while before your men come to puſh of Pike, that at that time you may bring as many men to fight as you can.

The diſadvantages that may happen to the Foot in a day of Battel are theſe. The greateſt is to be beaten by the Horſe, either on the one flank, or both flanks: and therefore the Foot Officers ought to imbattel their Foot ſo, that they may be able to ſhelter their Muſqueteers by their Pikes from the charge of any Horſe. The way how it may be done is ſhewed plainly in the three next Battels. Another diſadvantage is to be out-flanked by your Enemies Foot; to prevent which, your Chief Officers that command on the flanks of the Foot ought to have Order, that as ſoon as they perceive they are or ſhall be out-flanked upon one, or both the flanks, they ſhould draw up the Reer-guard of their Foot unto one, or both flanks of the Van-guard of their Foot, as they ſhall ſee cauſe. Another diſadvantage that the Foot may have is to be out-ſhot by the Enemies Artillery: In caſe it falleth out ſo, then, when you once come within ſhot of your Enemies Artillery, your Horſe ought to have order to advance as orderly, and ſpeedily as they may, until they come to en-

counter with the Enemies Horſe. If you fight with Foot amongſt your Horſe, your Horſe and your Foot muſt advance together. Likewiſe you muſt advance with your Foot and Artillery as orderly and ſpeedily as may be, until you come within ſhot of your Enemy with your Artillery, without ſhooting either with your Cannon or Muſquets.

If you underſtand that your Enemy hath more Pikemen in his Army than you have, or his Pikemen better armed with Defenſive Arms, or their Pikes to be longer than yours; then ought you to avoid, as much as you can, the bringing of your Souldiers to puſh of Pike.

In caſe the Muſqueteers in the Van guard of your Foot do come to want Powder, or your Diviſions of Foot in the Van-guard of your Army have loſt ſo many men, that they need relief from their reſerves in the Battel; then let the Officers in the Van-guard of the Foot have ſpecial command not to retreat with the Van-guard of Foot by no means, but to advance skirmiſhing eaſily towards the Enemy, until their reſerves be marched by them. Then let their Officers Command them to ſtand, and ſee that their Bandaliers be furniſhed with Powder, and Bullet, and ſet them in order with as much expedition as may be; and then let them march up within an hundred and fifty paces of the Reer-guard of Foot, and to be in a readineſs to ſecond them upon any occaſion.

A General ought to give particular Orders to all the

the Officers in Chief of his Army before the Battel begins, in writing, if he have time, that the Officers in Chief may know how to Command their Souldiers to make uſe of all the advantages, that he conceiveth may happen unto them in a day of Battel: that upon any neglect of his Officers for not making uſe of any ſuch opportunities, the excuſe of not having Order for the ſame may be taken away. Likewiſe it ſhould be written in their Orders how they ought to prevent any diſadvantages that a General conceiveth may befal them. The which will not only prevent excuſes, but according to the old ſaying, *He that is forewarned is fore-armed.*

Set upon your Enemy when he is affrighted and diſtracted; for there is nothing then to be expected of your Enemy but deſpair and confuſion.

A General muſt be careful to give a very ſtrict Order to his Officers, and Souldiers, that not a man of them offer to Pillage before the Field be clear of the Enemy; and that ſuch Officers as do ſuffer their Souldiers to Pillage before the Field be clear of the Enemy, ſhall ſuffer for the ſame as the Souldiers for Pillaging.

Before the Battel begins, you ought to give out a Field-word both to your Officers and Souldiers; and beſides your word, that your Souldiers and Officers may the better be able to know one the other, being mixt with the Enemy: they ought to wear ſomething or other about them to be known from the Enemy.

After the winning of a Battel, a General ſhould follow his Victory with all the expedition that he may, either by keeping his Enemy from gathering an head again, or preſently falling upon ſome Countries or Towns, where he thinks he may do his Enemy the moſt hurt: For the yieldings after a Victory, if well proſecuted, are better than the Victory it ſelf: becauſe when people are in ſuſpence, and great fear, and confuſion, as it happeneth in ſudden things, it is a ſingular time to obtain Victories, or ſome honourable compoſition. The fruit of Victory conſiſteth in the well uſing of it, which whoſoever doth not, incurreth an infamy ſo much the greater, than not to know how to overcome, by how much it is a greater fault to be deceived by the things that are in a mans power, than by thoſe that depend upon fortune.

Likewiſe a General is to take care for recruiting of his Army upon all occaſions, but eſpecially after a Battel.

Although thoſe things which are here before ſet down ſeem eaſie to underſtand, and very eaſie to practiſe; yet are they ſo often neglected by Commanders in Chief, either in neglecting to make uſe of advantages, or not giving out punctual Orders before a Battel for the aforeſaid things, or through the neglect of ſuch as ſhould put their directions in execution, that one or more of the aforeſaid neglects are always the loſs of Battels. And the loſs of two or three Battels proveth the loſs of Countries and Kingdoms.

He

He that deſireth either that a City defend it ſelf obſtinately, or that an Army in the Field fight it out reſolutely, muſt try his Wits to make an impreſſion in the breaſts of them that are to fight, that ſuch a neceſſity lieth upon them. And it much helpeth an Army towards the winning of a Battel, to make them confident that in any caſe they cannot doubt of Victory. The things that give them this confidence, are, that they be well armed, and well ordered. For when Valour is accompanied with good Order, and good Diſcipline, it makes good uſe of the fury in ſuch manner, and at ſuch times, that no difficulty abateth it, nor ever quaileth the courage: Becauſe thoſe good orders re-inforce the Spirit, and the Fury, both being ſtill maintained by the hope of overcoming, which never faileth while good Orders and good Diſcipline hold firm.

You ought not to deſpiſe, and think too meanly of your Enemy; for that will not only beget negligence in your own Army, but care and diligence in your Enemies Army. And it is moſt ſure, the valour of a few may ſurmount the number of many: and if you be broken by your Enemy that you deſpiſe, you double your own diſgrace by your raſh and indiſcreet arrogance.

But to ſpeak of chances, and to touch ſome particularities, thereby to ſhew evidently the weakneſs of mans wit, and power, and the caſualty of warlike attempts: let a man conſider by how many accidents the mightieſt Armies are many times diſperſed, and diſſipated, and the greateſt Enterpriſes

terpriſes overthrown. As ſometimes by the death of one man; ſometimes by the diſſention of Officers, or Souldiers; ſometimes by tempeſts, or unſeaſonable weather: ſometimes again by Plagues, or Diſeaſes in the Camp: otherwhiles by ſudden Fears that fall upon the Souldiers without cauſe; ſometimes (as *Guicciardine* noteth) by a Commandment either not well underſtood, or ill executed, by a little temerity of diſorder, by ſome vain word or ſpeech of the meaneſt Souldier: and laſtly (ſaith he) by infinite changes which happen at unawares, unpoſſible to be foreſeen and prevented by the wit or counſel of any man. Which ſheweth that no humane wit is able of it ſelf ſufficiently to govern an Army, and that God reſerveth to himſelf the ſucceſs of Battels, and diſpoſeth of Victories at his pleaſure.

CHAP. XIX.

Some certain Obſervations concerning the Retreat of an Army.

TO know how to make an honourable Retreat, is one of the principal points of Military Art, and worthieſt the knowledge of a General, to be able upon occaſion to make a ſafe and ſure Retreat: For thoſe that can do nothing elſe can eaſily put themſelves into a War, but to return home again in ſafety is that which concerneth the honour of a Leader.

When a General intendeth to retreat with his Army, he muſt be careful that (if it be poſſible) his Retreat be not through any places, but ſuch as his Pioners may be able to make him, where three or four may march in breaſt, beſides the way for the Carriages: For there is no greater danger of receiving a Defeat than when a Retreat is made at a narrow paſſage. But if you be forced to make a Retreat through a narrow paſſage, there is no better way to prevent danger, than to raiſe ſome Works near this paſſage in the moſt advantageous places you can find. If you retreat in the night with your Army, and have paſs'd any narrow paſſage with your Troops, it were very good for you to give command that ſome Caltraps be thrown into thoſe narrow paſſages to ſpoil your Enemies Horſe, if they follow your Troops; and

and if you retreat in the day-time with your Army, the aforeſaid Caltraps will be very uſeful to be thrown into dirty and watry paſſages.

A Retreat in view of the Enemy is the moſt dangerous action that can be undertaken by any Commander. And therefore it is held in the opinion of moſt Commanders better to retreat in the night, than in the day: becauſe it is very dangerous to purſue an Army in the night; and if he that retreateth be careful to lay his ambuſhes well, he may ſooner do a miſchief to his Enemy than his Enemy to him.

Likewiſe it is better to retreat with part of an Army, than with the whole; and it is beſt to march as far at firſt as poſſibly you may, to the end you might have ſome advantage of ſpace before the Enemy that followeth you: for ſo the Enemy durſt not follow you with ſmall Troops, and with great Forces they will never be able to reach you; beſides the ſcarcity and want of Victuals that they will find by following you, will much diſcourage them

Some Commanders now adays, whoſe skill reacheth not ſo far as to know the *A B C* in the Art Military, that is to ſay, the uſe of their Arms, they think it a blemiſh to their Honours to make a private Retreat in the night. But this is that that I will ſay of ſuch Gallants, *Preſumption* and *Ignorance* are two bad Counſellors in War.

CHAP.

CHAP. XX.

Some Obſervations concerning the ſtopping of an Army upon Paſſages either over Rivers, or difficult and mountainous places.

IN the firſt place I will ſpeak ſomething of ſtopping the paſſage of an Army upon a River, if your Army be to paſs a River that is not paſsable, but upon two or three places, without making a Bridge: I conceive this to be the beſt way. Upon the chiefeſt paſſage over the River there you ought to attend your Enemy with all your Forces, if you may find there ſufficient proviſions for your Army to ſubſiſt. And upon the other two Fords, or paſſable places, if they may be commanded each of them by one Sconce, I think it convenient then for you to give order for the raiſing of two Sconces, and to ſee them well furniſhed with Cannon, Men, Ammunition, and Victuals. But here you muſt note, if your Enemy do bring with him Punts, or Boats for to make a Bridge, or if he be able to procure Boats out of the Country for the aforeſaid purpoſe, then I conceive the raiſing of the Sconces is a needleſs labour: Therefore then the beſt way will be to march with your whole Army on the one ſide of the River, as your Enemy marcheth on the other (if the Country in your March be able to afford you Proviſions

for your Army) and ſo to fight with your Enemy as he paſſeth the River; or after your Enemy hath poſſeſſed the River, if you think you have Forces ſufficient to encounter him.

I hold it a moſt dangerous, and un-Souldier-like action for any Commander to divide his Forces for the keeping of paſſages againſt an Army, whether it be upon a River, or any other ſtrait and difficult paſſages: for you ought not to put all your Fortune in danger, and not all your Forces: To do ſo is a manifeſt folly. He is never thought a good Gameſter that would hazard his whole reſt upon leſs than the ſtrength of his whole Game. My reaſons for it are theſe: If your Enemy forceth one of thoſe paſſages that you endeavour to keep, or find out ſome other paſſage that is not guarded, you will find much trouble and pains before you can draw your Forces together. And very likely the Enemy may prevent you from doing it, either by forcing you to fight before your Forces are come to you, or by keeping you from joyning your Forces together again. And when it cometh to paſs that your Forces muſt leave the paſſage which they are to guard, or loſe it by ſome occaſion, there is a fear and terror ſtricken into the hearts of the people and Souldiers which truſted in that place; that being unable to make experience of their valour, you loſe, or are in danger to loſe your Enterpriſe. Thus it came to paſs at the coming of the *French* into *Italy* in the year one thouſand five hundred and fifteen, in the time of *Francis* the Firſt, King of *France*, where it manifeſtly appeared to what paſs it came to hold difficult places ill to be kept, and to ſtop

paſſages

paſſages, as you may ſee in *Guicciard. lib.* 12. For the reaſons aforeſaid the *Romans* never held nor guarded the paſſages againſt *Hannibal*, but rather would that their Armies ſhould fight in open places where they might overcome him, than to ſend them to the Mountains to be conſumed with cold, or other diſcommodities of thoſe places.

CHAP. XXI.

Some certain Obſervations touching the profitableneſs of Intrenching, and ſome Directions for the ſame.

THE Intrenchment incloſeth your Army as a walled City, from whence you may march privately with ſuch deſigns, leaving your Baggage in ſafety. The Intrenchment hindereth the Enemy from conſtraining you to fight, unleſs when you pleaſe. The Intrenchment cauſeth you to take ſtrong Cities in the face of a more puiſſant Army than your own. Briefly, the Intrenchment is leſs ſubject to Infection, than the Villages are. In effect, an Army Intrenched and hutted, will rather ſubſiſt three months in Health in a Camp (in the Summer-time) than a fortnight in the beſt Villages. One of the moſt neceſſary parts of War is to know how well to incamp, and intrench.

When you come to beſiege a Town before which you intend to intrench your Army, you ought to place your line of Circumvolation ſo near the Town, that you may be able to quarter your Army within it ſafely from your Enemies Shot; allowing an hundred and fifty foot for an Alarm-place between the Breaſt work and the front of the Quarters. The Trench without your Breaſt-work muſt be twelve foot in breadth, and ſix foot in depth, and three foot in breadth at the bottom. And the Earth that cometh out of the Trench will raiſe you a Breaſt-work, or Rampier of twelve foot in breadth at the bottom, ſix foot in height, and three foot in breadth at the top, with one foot bank. Upon your line of Circumvolation at the diſtance of every two hundred paces, you ought to have a Spur upon your line to flank it. And before the Quarters of every Regiment upon your line of Circumvolation you muſt leave a ſmall Avenue, that one ſingle man and no more may be able to paſs through at a time. You muſt likewiſe have in your line of Circumvolation four great Avenues for Carriages to paſs through: and upon the great Avenues you muſt ſet up Turn-pikes, and without every Turn-pike there muſt be an Half-Moon. Here note, your Army muſt be divided into as many Quarters as you intend to have approaches againſt the Town. And you muſt raiſe ſome Batteries cloſe within the line of Circumvolation, there where you think the moſt advantageous places may be for the ſame, for the annoying of any Enemy that may come to trouble you.

If you ſuppoſe your Enemy may come ſo ſtrong as to attempt the forcing of your Quarters, then ought the Trench of your line of Circumvolation to be in breadth ſixteen foot, and in depth eight, and in breadth at bottom ſix foot. You ought likewiſe to have ſome Out-works, both Half-Moons, and Horn-works, within Muſquet-ſhot of your Rampier or Breaſt-work. And if there be any Hills ſomewhat above Muſquet-ſhot off from your line of Circumvolation, that may be advantageous to your Enemy for the planting of his Ordnance to play upon your Breaſt-work, or any part of your Quarters, you ought upon ſuch an Hill to raiſe a Sconce. Thus you ought to obſerve and do, if you intend to fortifie your Leaguer ſtrongly for to prevent a powerful Army from forcing your Quarters.

If you have a deſire upon any occaſion to Intrench your Army in the Field for their better ſafety, your beſt way then will be to draw your Army into as little a compaſs of ground as you may with convenience. For the leſs compaſs your Rampier is, the eaſier it will be to defend: And if you have any occaſion to ſend out any part, or parts of your Army upon any deſign, thoſe which are left, the leſs compaſs of ground they have to defend, the better they will be able to do it.

The Sod or Turf which you are to face your Intrenchment withal, if you are likely to have any Winter-Siege, or any long Siege, muſt be four or five inches long, or thereabouts, and in length fourteen or fifteen inches diminiſhed inwards.

CHAP.

CHAP. XXII.

Some certain Obſervations about the taking of Towns and ſtrong Places.

THere are ſeven ways to win Caſtles, ſtrong Holds, and fortified Towns. Firſt, by Treachery. Secondly, by Surpriſe, as by Petarring the Ports, and by Aſſaults. Thirdly, by Approaches, Batteries, and Aſſaults. Fourthly, by Approaches, Mining, Batteries, and Aſſaults. Fifthly, by Intrenching, Approaches, Mining, Battery, and Aſſaults. Sixthly, by Compoſition. Seventhly, by Starving.

Philip of *Macedon* eſteemed no place ſtrong, where his Aſs loaden with Gold might enter. For the attempting, or taking of Towns by Surpriſe is very commendable in Officers, and ſometimes very ſucceſsful where the Officers have good Intelligence, and carry their buſineſs ſecretly, carefully, orderly, and valiantly. And there is no adventure for ſurpriſing a place more ſafe in War, than that which is fartheſt from ſuſpicion of being undertaken: and by ſuch ſudden deſigns one may gain that in one hour, the which may not be gotten any other way under a years ſervice of an Army, or two.

In the beſieging of all Towns a Commander muſt be careful that his Enemy be not able to cut off his

his Victual, or his Retreat, and that he beſiege no Town but ſuch as he is able to cut off all relief from the Beſieged. A Commander in Chief ought likewiſe to be careful how he adventureth upon Winter-Sieges, and long Winter-Services, or long Sieges at any time, unleſs the conſequence of the place requireth it, and that he be ſure to take it in the end. Long Sieges ruine Armies, empty the Purſe, and moſt commonly it falleth out ſo, that it hindreth Armies from better imployments; and after a long Siege, though things fall out according to a Commanders deſire, he will have little reaſon to brag of his Victory, when he vieweth his Expences, his Time, and his Army. The malice of a great Army is broken, and the force of it ſpent in a great Siege. *Hannibal* entring into *Italy* with his Army to make War upon the *Romans*, would not be drawn to beſiege any of their Towns: all his War was to weaken them in Force and Reputation, knowing that when he was abſolute Maſter of the Field, it would not be long e're the walled Cities would open their Gates, without expecting any Engineer or Battery.

If a General beſiegeth any Town in which his intelligence, or his opinion hath deceived him ſo much, that he hath little hope of taking it, the ſpeedy leaving off any ſuch Enterpriſe doth excuſe the raſhneſs which might be imputed to the beginning: and a Chief Commander is not ſo much blamed for making trial of an ill-digeſted project, as he is for the obſtinate continuing in the ſame: and if he refuſeth to be led by reaſon in ſuch a caſe, as being the beſt means to guide him to convenient

venient ends, he is commonly conſtrained by the commanding warrant of neceſſity to undergo the ſame thing upon harder conditions.

It is moſt difficult to accompliſh the deſign of a Siege, eſpecially of any In land Town, ſo long as you have a good Army incamped near you, or likely to attend you ſpeedily, the which Army will be able to cut off your Victuals, or conſtrain you to fight, unleſs you have two Bodies of Armies, that ſo with the one you may hold your Enemy in play, and with the other you may actuate without impeachment: or, unleſs you be Maſter at Sea of your Enemy, and then you may beſiege any Sea Town of your Enemy with one Army, without any hazard at all, if you can have time to intrench your ſelf ſtrongly, before your Enemy be able to inforce you to fight.

The ſureſt, ſafeſt, and ſpeedieſt way of taking any Town, if it requireth above three weeks Siege, and if your Enemy be able to bring any force to put relief into it, or to force you to fight, is, by intrenching your ſelf before them. And when you are intrenched before a Town, where your Enemies hopes in making you to quit it do conſiſt in nothing elſe, but in cutting off your Victuals, you ought to have that foreſight to bring with you, or cauſe to be brought into your Leaguer out of the Country ſo much Victuals as you judge to be neceſſary to ſerve your turn for the taking of the Town. This way you may take a Town with one Army, though your Enemy ſpeedily attendeth you with another Army.

If

If you make a Siege with a ſmall Army, with an intent to ſtarve a ſtrong Garriſon, you muſt fortifie your Quarters one after another with the whole body of your Army; and then if you think fit you may run lines from one quarter to another.

Every Commander knoweth that mans fleſh is the beſt Fortification that belongs to a Town; and where a Town is well manned, the beſt way of taking it is by Starving; and when a Town is weakly manned, the beſt way of taking it is by Battery and Aſſaults, or by Approaches, Mining, Battery, and Aſſaults.

One thing more I could adviſe a Commander in Chief to be careful of, and that is, not to aſſault any Town, or Place without great probability of obtaining that which he deſireth; and never to aſſault a Town, but when he may aſſault it at divers places at once. There is nothing ſo ſuddenly ruineth Armies as Aſſaults when they miſcarry. For a General is certain to have his beſt men killed and ſpoiled upon ſuch deſigns, and the reſt ſo much diſcouraged, that it would prove very dangerous unto an Army if they ſhould ſuddenly after it fight.

Mines, where you may come to make them, are much better than Batteries for the taking of Towns or Caſtles: becauſe they always prove much more dangerous, and terrible to an Enemy by means of their ſudden, and unexpected operations: and all ſudden and unexpected actions

are very ſucceſsful in all Martial Affairs. A Commander cannot take any place of ſtrength with any certainty or ſafety, without the uſe both of Batteries and Mines.

A Chief Commander when he marcheth to beſiege a Town, ought to carry with him as much Mony, Ammunition, Victuals, and all other neceſſaries, as is poſſible to be carried for the Siege: and thoſe neceſſaries that he cannot carry with him, he muſt be careful to furniſh himſelf withal with as much expedition as may be, for fear his Enemy may find out ſome way that he doth not think of to prevent him of his neceſſaries, or at leaſt cauſe them to be brought to him with much danger and trouble.

The firſt thing you are to do when you are marching towards a Town to beſiege it, is to ſend the moſt of your Horſe and Dragooners, and with them likewiſe near as many Muſqueteers as you ſend Horſe, about three or four days before the body of your Army; that you may thereby keep all ſupplies from coming to the Town: and command your Horſemen to take up the Muſqueteers now and then behind them upon the March, that they may be able to make the more expedition. You ought alſo to ſend along with the Horſe your Quarter-Maſter General, and ſome two or three of your chief Engineers, that they may, by that time your Army cometh up, have pricked out the line of Circumvolation, and the Quarters for your Army; and to view, how many approaches you may conveniently make towards the Town: For ſo

many approaches as you make, ſo many quarters ought you to divide your Army into. After your Engineers, and Quarter Maſter-General have pricked out the line of Circumvolation, and the quarters, then ſo ſoon as your Army cometh to the quarters, draw them into their Quarters, and command them to Hut with all the expedition they can. Likewiſe the line of Circumvolation ought to be divided into as many parts as there are quarters, according to the ſtrength of the Regiments in each quarter. Then the Quarter-Maſters of the Regiments of Foot ought to divide the ground equally amongſt their Regiments; and each Quarter-Maſter of a Regiment is to meaſure out to each Company of his Regiment their ground: and the Officers are preſently to ſet the Souldiers their work, for the raiſing of the line of Circumvolation. And the Souldiers ought to know when occaſion requireth them to intrench themſelves, that it doth as properly belong to their Duty to intrench themſelves, as to ſtand Centry, or to carry their Arms.

As ſoon as the earth is out of the Ditch for the raiſing of your Rampier, then may you begin your approaches. And you muſt always be careful to break ground at the firſt, as near the Town as poſſibly you may with convenience: And that you may break ground the nearer, and your men be the more bold, ſet your Pioners and ſome others to work as you come to your Quarters, for the making of great ſtore of Cannon-Baskets, which may ſerve you in good ſtead for this uſe: At the beginning of every night ſet them up before thoſe

which are to break ground; and on each hand of thoſe Cannon-Baskets which you ſet up before the Souldiers that are to break ground, you ought to ſet ſome Cannon-Baskets for the ſafeguard of the Guards. Your approaches ought always to be well flanked with Redoubts and Batteries.

If a General come before a Town, where is but a weak Garriſon, and many Out-works to the Town more than the Garriſon is well able to defend, it will be good then for a General to attempt taking of ſome of the Out-works; and if he take any, he ought to begin his approaches from thence.

The beſt time to aſſault the Out-works will be in the night.

Through all dry Motes you are to approach the Rampier of a Town by Galleries under ground, under the dry Mote of the Town. And through all wet Motes you are to approach to the Rampier of a Town by Galleries above ground. But in running your Gallery under a dry Mote you muſt have a care that it be not diſcovered to the Enemy by carrying the earth out of your Gallery. The next thing you muſt have a care of, is, that you do inform your ſelf rightly, before you begin your Gallery, of what depth the Mote is, that you may begin to make your Gallery ſo far back, as to be ſure to run your Gallery under the bottom of your Enemies Mote. For if your Enemy once diſcovereth againſt what part of the Wall you are running your Gallery, it is ten to one but your Enemy may

prevent

prevent you, either by hindering you from advancing your Gallery to the Rampier, or by rubbing your Mines.

When you have advanced your Galleries to the Rampier, let thoſe that are appointed to aſſault the Breaches, and the Ports, have Souldiers appointed to throw Hand-granadoes, and to fall on with them: and give order to thoſe that are appointed to aſſault the Breaches, and ſcale the Walls, that as ſoon as they are gotten within the Wall, or Rampier of the Town with a reaſonable number of men, they march unto that Port that is next them, and open it to let in the Foot, and Horſe that do there attend. And for this purpoſe there ought to be ſome Souldiers appointed to carry fit Inſtruments for the breaking open the Gates of a Town.

When a Port is opened, let the Officers have order preſently to repair to the Market place with their Souldiers for clearing of the Enemy from that place. And you ought to command the Officers and Souldiers that no man offer to pillage upon pain of death, until all the Enemy within the Town that carry Arms be either killed or diſarmed. Beſides the word you give to your Souldiers, to know one the other by, you ſhould command them to wear ſomething about them that they may know one the other from the Enemy.

If your Officers when they aſſault a Town do find the Town to be cut off by the Enemy by raiſing any works within the Rampier, or Wall of the

the Town, then a Chief Commander ſhould give Orders to the Officers appointed for the Aſſault, that in caſe they find any ſuch thing, then they ſhould do their beſt to plant themſelves with their Souldiers on the top of the Rampier only; which muſt be done by help of the Engineers Work-baſis, and Pioners, who muſt be appointed to be in a readineſs with Saccots in their hands, when they ſhall be called upon to fortifie any place that the Souldiers may poſſeſs themſelves of, if occaſion require. The like order muſt be obſerved in aſſaulting of Out-works, as is here ſet down in this laſt obſervation concerning the aſſaulting of a Town.

You ought likewiſe to have in a readineſs Ovens to heat Cannon-Bullets red-hot upon all ſuch Batteries whereby you can conveniently come to ſhoot them into the Town. Likewiſe your Mortar-pieces muſt be ſo conveniently placed, that you may ſhoot Mortar-granadoes into the Town, and wait a little to ſee the effect of your Fire-Bullets, and Granadoes.

Here note, that you muſt not ſhoot any Fire-Bullets, nor Mortar-Granadoes into the Town, until one half hour before you begin to aſſault: For if you do uſe the Fire-Bullets, and Mortar-Granadoes before the aforeſaid time, you will teach your Enemy to find out a way to prevent you for doing any miſchief with them at your Aſſault: And likewiſe your Enemy being uſed to them, the fear of the danger of them will by uſe be taken away,

and

and they will strike no fear at all into your Enemy upon your Assault.

Having your Mines ready to spring, your Breaches large, low, and wide, your men placed ready to March with Petards to the Ports, likewise in a readiness with good store of Scaling-Ladders, and your men drawn out, and placed ready for the Assault of the Breaches, and your Ordnance playing with Fire-Bullets, and your Mortar-pieces with their Granadoes, then spring your Mines, and give a general Assault.

One thing more I think fit to add to this Discourse. There are two ways for blocking up of an Haven, or a River. The first is, You must make of Iron a thing in form of a Frisrutter, the beams through which the cross-bars go must be twelve foot in length, and the cross-bars that go through the beam must be of that length, that when one of these iron Frisrutters is set down into an Haven, or River, the cross-bars of the iron Frisrutter must be of that length as to reach upon an High-water within six foot of the top of the water. This is one of the best inventions that I know for the blocking up of an Haven, or River. There is no way that I know to remove these Frisrutters out of an Haven or River, which is blockt up with them, and having so many of these Frisrutters made in a readiness before-hand as will block up an Haven or River upon which you have a design, and having all other necessaries in a readiness for the letting of those Frisrutters down into the Haven, or River, you may

block

block up an Haven or River in four and twenty hours time.

There is another way of blocking up an Haven or River, by throwing great Stones into them, and leaving small passages for the water to pass through. By this Invention the King of *France* won *Rochel*.

CHAP. XXIII.

Some Directions for the Removing of an Army that is Intrenched before a Town.

IF an Enemy be intrenched before a Town, it most often proveth hard to remove him, if he hath men enough to defend his line of Circumvolation, and keep his Approaches. The most usual ways to remove an Enemy which is intrenched before a Town, are these four. The first is, to attempt the cutting off your Enemies Provisions from him. The second is, if your Enemy hath by over-sight left some Hills near the Town without his line of Circumvolation unfortified: and if the Hills be so, that Ordnance being planted upon them, they will command the ground between them and the Town; then you may by possessing your self of these Hills force your way

to

to the Town either by a forceable Assault under the shelter of your Cannon, or by Approaches: Or if any Hills lie so that you may command the ground close within your Enemies line of Circumvolation, planting Ordnance on them, that your men may under succour of your Ordnance be able to force your Enemies line of Circumvolation, then you may beat him off his line of Circumvolation, and so force his Quarter. The third way is to march into some of your Enemies Countries. The fourth and last way is to besiege some of his Chief Towns, that you have certain intelligence do want either Men, Victual, or Ammunition.

CHAP. XXIV.

Some Directions and Observations to be observed and followed by a Governour of a Frontier Town, for the furnishing of it with necessary Provisions against a Siege, and for the defence of it in a Siege.

TO a Governour of a Town, or General of an Army, or such like persons as have Publick Charge, there is sometimes given very large Commission; nevertheless Wisdom and common Experience teacheth those that have such Authority, not so to use it as though it were their own; but they ought to have an eye to him from whom they receive it, and to whom they must yield a reason, and give an account for their Charges.

The first thing a Governour of a Frontier Town ought to be careful of when he taketh the Command of a Frontier Town upon him, is to see that he hath a sufficient Garrison to maintain the Town, and the Out-works against a long Siege. For mans flesh is the best Fortification: and let no man trust in the strong situation of any place, neither in the fortification thereof: For if there be not men sufficient to guard and defend it, the strongest Towns and Castles in the world are easily taken.

The

The leaſt proportion of men that can be allowed to defend a Town, and the Out-works, or a Town without Out-works, is for every thouſand paces of Rampier that is about a Town (allowing three feet to the pace) to have a thouſand men. The next Proviſions that a Governour ought to ſee his Town furniſhed withal is Victuals, and all ſorts of Ammunition, Firing, and Salt for a year. It is very fit he ſhould likewiſe take order that he be furniſhed with Mony for his Garriſon by the Town, or out of the Country adjoyning. The Rampier of the Town ought to be well furniſhed with Artillery: and he ought to have ſome ſmall pieces in ſtore for his Out-works, and to have in his Magazine many ſpare Carriages to mount his Ordnance again, if any ſhould be diſmounted: and to ſee that he be furniſhed with all things neceſſary that belong to the Ordnance. Alſo a Governour ought to ſee his Town furniſhed with a good Miniſter and Engineer, and likewiſe with a Phyſician, a Firework-Maſter, an Apothecary, and Chirurgions; and to have in ſtore a ſufficient quantity of Drugs for a years Siege. Alſo he ought to have his Garriſon furniſhed with a good Mortar-piece or two, the which will be very uſeful to ſhoot into the Enemies *Corps de Guards* in their approaches, or when you Sally: and for that purpoſe you ought to be furniſhed with good ſtore of Mortar-granadoes, and Hand-granadoes, Spades, Pickaxes, Shovels, and a Magazine of Arms, with good ſtore of planks to make *Corps de Guards*, Sentry-houſes, and Batteries withal. A Governour ſhould likewiſe be careful to provide a years Proviſion for his Horſes before hand, for

ſuch Horſes as he intendeth to keep in his Garriſon in a Siege.

If a Garriſon lieth ſo, that it cannot eaſily be relieved with Ammunition, then the Governour ought to have a Powder-mill in his Town; and in his Magazine good ſtore of Brimſtone, and one that is skilful in making of Powder, and another that hath skill in making Match: and he muſt be careful to ſow at a fit time of the year a competent quantity of Hemp-ſeed for the making of Match. If the Corn-Mills about a Town lie ſo, that the Enemy may be able to ſpoil, and deſtroy them, then the Governour ought to ſee his Town furniſhed with Hand-mills. He muſt alſo have a ſpecial care that his Walls be out of danger of ſcaling; the Gates of his Town not ſubject to be petarred. Now the beſt way to prevent petarring the Ports, is to have Draw-bridges, and Half-moons, without the Ports, and Port-cullices at the Ports, and Turn-pikes upon the High-ways right againſt your Half-moons. The ways for the Rounds ought to be eaſie, and convenient; the Sentinels well ſet: the Guards very exact; and the Companies that are to watch ſhould always draw Lots for their Guards.

And if you ſuſpect any Officers, or Souldiers for betraying your Town (as in Civil Wars Souldiers are apt to do, or when they are ill paid) then muſt you order your Guards after this manner. Let your Companies that watch draw Lots, for their Guards upon the Parrado place every night; when they have drawn Lots for their Guards,

Guards, let thoſe Companies whoſe Lot falleth to watch at the Ports be ordered after this manner. That Company whoſe Lot falleth to watch at a Port, let the one half of that Company watch at the Port that is appointed them by Lot, and the other half at one of the Half-moons at one of the other Ports next adjoyning. And all the Companies that are to watch at the Ports are to be ordered in the like manner.

Now here you muſt note, that if a Governour will have his Town ſecured from ſudden Surpriſes, he muſt have always without the Ports of his Town Half-moons, and Turn-pikes upon the High-ways right againſt the Half-moons, and Port-cullices at his Ports. The Gentlemen that are to watch at each Port-cullis ought to be four, which muſt be drawn, and relieved from the Main-guard. Theſe Gentlemen ought to be lock'd up in the place where the Port-cullices ſtand, until they be relieved: and the Captain of the Main-guard ought always to keep the Key. All the other Companies appointed for the Watch, are to watch according unto their Lots.

All means muſt be uſed to hinder Intelligences, and Treacheries; the Guards doubled always upon Market-days, and Fair-days: and upon any Alarm thoſe Souldiers that have not the Guard ought to repair with their Arms ſpeedily to their Colours; and from thence the Companies are to make all the haſte poſſible to attain to the place that is appointed them to defend upon any Alarm. Thus much every Company that hath not the Watch ought

ought to know, and have order for the ſame before-hand.

If you miſtruſt the fidelity of the Townſ-men, you ought to keep a good Main-guard upon the Market-place, and ſmall Guards at all the croſs-ſtreets, and then make it death for any Townſman to come out of his houſe upon any Alarm. And if the Townſ-men have any meeting together at any time without the Governours conſent, they ought to be impriſoned. The like muſt be obſerved if they are found out of their Houſes after nine of the Clock at night. Likewiſe if you miſtruſt the fidelity of the Townſ-men, it is very neceſſary that there be a Work raiſed againſt the Rampier of the Town, the which muſt face the Town, and command part of it, and one of the Ports. In this work you ought to build places for to keep your Magazine in. And at the entrance of this Work without the Port of the aforeſaid Work, there ought to be a Draw-bridge and a Port-cullis; and the Draw-bridge ought never to be down, or let down but at relief time. The Ports of your Town ought to be ſhut at Sun-ſetting, and to be opened a little after Sun-riſing. Before you open your Ports in a morning, you ought to ſend out ſmall Parties to ſearch all the ſuſpicious places about the Town for Ambuſhes. After theſe parties are returned, finding no danger, you may open your Ports, and ſet out your Day-Guards for the ſecurity of your Cattel: and then the Townſ-men may drive forth their Cattel. You ought likewiſe to have a Trumpeter to watch continually on the higheſt Steeple in your Town, to give you notice

of

of the approach of any Enemy by day, or of any Alarm, or Fire by night.

A Governour of a Town ſhould be careful always to have parties abroad, that he may the better ſecure his own Quarters, and trouble the Enemy. And eſpecial care muſt be taken for getting conſtant intelligence from the next Frontier Towns of his Enemy.

A Governour of a Town ought to ſee that he have as many Out-works raiſed about his Town as is neceſſary, and not more; and that all his Out-works be commanded by the Rampier of the Town.

If the conſequence of the Town requireth it, and if a Governour may by raiſing a Sconce or two ſecure his Town, and the relief of it the better, it were very fit to do it. But he muſt have a care that the Sconces which he raiſeth for the ſecurity of the Town be raiſed in ſuch convenient places, that an Enemy when he cometh to Beſiege the Town, may not be able to plant himſelf between the Sconces and the Town.

In the fortifying of a Town if the Governour lay many Elms, or Oak-Trees, in the Bulwarks which he raiſeth about the Town, he will find it a good prevention to hinder the Enemy from mining his Bulwarks: and likewiſe it doth ſtrengthen his Bulwarks very much againſt Batteries.

If a Governour of a Town hath certain intelligence

ligence that he ſhall be beſieged, and findeth that he hath not Horſe meat ſufficient for the Horſe that are in the Garriſon, anſwerable to the reſt of his Proviſions in the Town; and in caſe he hath not time to provide more, then the Governour ought to ſend away ſo many of his Horſe as he hath not meat ſufficient for to hold out with the reſt of his Proviſions, or ſuch as he ſuppoſeth he ſhall not have occaſion to uſe, unto one of the next Towns that belong to his Party.

Likewiſe if a Governour of a Town find that he hath more Out-works than his Souldiers are well able to defend, it will be ſafeſt for him then to ſlight thoſe Out-works that he thinketh he ſhall have leſs occaſion to uſe.

A Governour muſt be careful of uſing his beſt endeavours and skill valiantly to defend his Out-works. For next mans fleſh, Out-works are the beſt ſtrength that belongeth to a Town. And upon all occaſions he muſt be careful to cut off the Out-works of the Town; and the Town, as often as the Enemy ſhall inforce him to it.

The greateſt part of the Cannon of the Town ought to be planted againſt the Enemies approaches; and the Governour ought to give command that they play upon his Enemies approaches as often as his Ammunition will give leave.

A Governour ſhould be careful to ſally no oftner with ſtrong parties than neceſſity requireth, or the

the advantages that the Enemy by his careleſneſs, or boldneſs ſhall give him occaſion.

At the beginning of every night you ought to make ſallies with ſmall parties upon the Enemies Workmen that do then approach, and break ground, and now and then to ſally with a ſtrong Party.

At the beginning of the night you ought to make ſome fires ſo near the Enemies approaches as you can conveniently, that you may be able to ſee by the light of the fire where your Enemies break ground; that ſo you may the better hinder them by ſhooting at them with the more certainty.

For which occaſion your Town ought to be the better provided of Wood, and Pitch-Barrels. And there muſt be care taken to lay ſome Souldiers with Fowling-pieces or Fire-locks, behind little ſmall Breaſt works not far from the fires, to ſpoil thoſe that may come to put out the fires.

If a Governour of a Town be ſure he hath more Powder than is anſwerable to the reſt of his Proviſions (the which he ought always to have) then may a Governour undermine his Enemies *Corps de Guards*, when they are advanced very neat unto his Out-works. And always when he ſpringeth a Mine, he ought to ſally ſtrong on his Enemies Trenches, and to command thoſe Officers, if it be poſſible, to nail the Enemies Ordnances; and for that purpoſe ſome Souldiers ought to be appointed to carry fit inſtruments with them. And

whenſoever you ſally ſtrong on your Enemy, you muſt likewiſe have in a readineſs ſome Spademen to ſlight ſuch of the Enemies works as your Souldiers ſhall poſſeſs themſelves of. Alſo you muſt have a care to appoint many Souldiers for the throwing in of Hand-Granadoes into your Enemies *Corps de Guards*; the which will be a ſpecial means to help your Souldiers for the beating your Enemy out of their *Corps de Guards*.

If your Town be fortified with a dry Mote, and if your Town be well manned, it is much ſtronger then a wet Mote: And as ſoon as you ſee upon what parts of the Town your Enemy doth make his approaches, then dig a Trench in the bottom of your dry Mote, ſo far as you ſee your Enemies approaches are in breadth againſt your Town, about eight or ten foot in breadth, and ſo deep, until you come either to Water or Rock. But if you are fain to dig deep before you find either, then make a Gallery under ground under the bottom of your dry Mote, ſo far as your Enemies approaches go. For which purpoſe your Town ought to be furniſhed with good ſtore of Timber. And if you obſerve the aforeſaid directions, it will be impoſſible for your Enemy to run his Galleries to the Rampier of the Town without being diſcovered: and then you may eaſily prevent him from doing you any hurt, either by his Galleries, or his Mines.

If your Town be fortified with a wet Mote, then the beſt and ſtrongeſt Fortifications that belong to a wet Mote is a falſe bray of ſome twenty foot

foot in breadth; and when you perceive where your Enemy will make over his Gallery to your Rampier, then muſt you plant two of the beſt pieces of Cannon that you have in your falſe Bray juſt againſt the mouth of your Enemies Galleries; the which two pieces muſt be ſunk ſo deep, that they may play almoſt level with the water: By this means you will be able to do your Enemy the more miſchief, and ſecure your Ordnance the better from your Enemy. For the more ſecurity of your Ordnance and Cannoneers from your Enemies Batteries, you ought to raiſe the Traverſes cloſe to your Cannons croſs your falſe Bray.

In defending the Out-works of a Town that is fortified with a wet Mote, there muſt be a ſpecial care, and reſolution ſhewed: For the Out works being once loſt, you can Sally no more on your Enemy.

I will conclude with this advice to all Governours that are to defend a beſieged Town, that they have a ſpecial care of theſe three things. The firſt is, that from the beginning to the end of a Siege, their care be ſuch, that their Garriſons ſpend no more Victuals daily, than neceſſity requireth. The ſecond thing is, that they do not vainly waſte their Men, Ammunition, and firing, but that they do ſo order the expence of theſe things, that they may be able to hold out with their Victuals: For many Governours do either cowardly, or ignorantly make a waſte of the aforeſaid things, that they may give over Towns the ſooner to their Enemy, and that, as they con-

ceive with honour enough; whereas their own cowardlineſs hath brought them to want neceſſaries for the defence of their Towns, more than the preſſing Service of their Enemies. But if ſuch Governours had their deſerts, they ought to die for ſuch careleſneſs and cowardlineſs.

The third and laſt thing is, that they carefully defend their Out-works, and their Town with all the Skill, Judgment, and Valour that they and their Garriſons can afford; and that they ſo order their Sallies, and the cutting off their Out-works and Towns, that their Garriſons and Towns may be able to hold out ſo long as the Proviſions of the Town ſhall laſt.

One thing more I think fit to adde in this place, a way to break a Bome, or a Bridge that ſhall be made over a River for hindering Proviſions from coming to the Town that is beſieged. Take a great Ship, and let it be made with Maſon-work within in the manner of a Vaulted Cave, and upon the Hatches lay Mill-ſtones, and other Stones of great weight, and within lay many Barrels of Powder in the Vault. By means of the danger you will hardly get any man to conduct it; therefore you muſt tye a great Beam at the end of the Ship to make it keep a ſtraight courſe in the midſt of the Stream; and when you have a fair wind, lay your Train and ſet it going.

If the Corn you keep in ſtore for your Garriſon be now and then duſted, it will keep good in a Garner ſeven years; but if your Corn by chance grow

grow muſty, then make Biſket of it; for then it will make as good Biſket as the beſt Corn in the world.

CHAP. XXV.

Some Obſervations concerning Fortifications.

TOuching the Art it ſelf in reſpect of the matter, and the manner, it is a member of Architecture; but the end is Military: For to fortifie is nothing elſe but to raiſe Works anſwerable to neceſſity, and the occurrences of War. Neither is it the end of Fortification to make a place impregnable, or impoſſible to be taken; for ſo it were *ars artium*. But to reduce it to a ſtrong defence: concerning which Art, ſeeing there are ſo many Books written, I will here ſet down only thus much in brief of it, that in Fortifications you muſt obſerve five principal things, namely, that the Line of Defence be within Muſquet-ſhot; that the flanked Angle do not exceed ninety degrees, nor be leſs than ſixty: that the gorge of the Bulwark be not too narrow: that the flank be as great as may be: that all Out-works (if it be poſſible) muſt be commanded by the body of the Fortifications.

CHAP.

CHAP. XXVI.

Some Obſervations of Mines.

COncerning Mines thus much I may ſay without prejudice to that Art, that the chiefeſt things to be reſpected are theſe; firſt the true diſtance to a deſigned place; which is beſt gotten by Inſtruments, and help of Geometry, where other marks of certainty are wanting. Secondly, the direction of the Mine, that you may not erre in your courſe, which the Compaſs affordeth. Thirdly, the ſtrengthening of the Mine with Timber-work, if need requireth; and ſtopping of your Mine well, and laying your Train well. Laſtly, the counter-mining, and croſs meeting: All which parts have very many circumſtances, and require a larger Diſcourſe than may be thought pertinent for this place: And being at large diſcourſed of by many ſeveral men, I will omit to ſpeak any further of it here: only thus much more, that I hold Mines much better than Batteries, where you may come to make uſe of them with any expedition, becauſe of their ſudden and unexpected operations.

CHAP.

CHAP. XXVII.

Some Observations for the keeping of Conquered Countries.

A Conquerour ought to know that an imperfect Victory is the seed of a new War. If thou hast made a Conquest with thy Sword, think not to maintain it with thy Scepter; neither conceive that new Favours can cancel old injuries. No Conquerour sitteth secure upon his new-gotten Throne, so long as they subsist in power that were dispossessed of their Possessions by his Conquest.

If thou hast Conquered a Land, whose Laws and Language differ not from thine, change not their Laws and Taxes; and so the two Kingdoms will in a short time incorporate, and make one Body. But if the Laws and Language differ, it is difficult to maintain thy Conquest; which that thou mayest the more easily do, observe three things: First, to live there in person (or rather send Colonies) Secondly, to assist the weak Inhabitants, and weaken the mighty. Thirdly, to admit no powerful Foreigner to reside there. Remember *Lewis* the XIII. of *France*, how suddenly he took *Millan*, and how soon he lost it.

Here you must note, if you Conquer a Free People, to assure your Conquest you must do these two things;

things; Firſt, to take away the deſire of Revolting from thoſe whom you have Conquered. To do this, you muſt not take away (at leaſt during the life of thoſe who have lived ſo) their hopes of recovering their Liberties by their good Obedience, either to them or their Children: And therefore you muſt always begin by a fair way, and eſtabliſh a condition for them whom you have conquered, which may be ſure both for their Life, their Wives, and their Goods.

There is another means, whereof the Antients made a profitable uſe, and is now wholly left, the which I have ſpoken of before, and do marvellouſly approve of, which is to eſtabliſh Colonies, and to tranſport the people from one Country to another. The conquered people will have much the better of it by their change; for they ſhall enjoy ſuch liberties as the people do amongſt whom they live; whereas in their own Country they will be kept ſo much under, that they can hope for nothing but their lives. And the Conquerour by this means will be much the more aſſured of keeping the people in Obedience.

Chap. XXVIII.

Some Directions for the Preventing of Civil Wars.

A Kingdom, or State, in preventing Civil War ought to obſerve theſe four principal things. The firſt is, that a Kingdom or State ought to have Fortreſſes, but good ones, and few in number, and none within the heart of the Country. And you ought not to perpetuate any Government, neither to Families, nor yet for life.

The ſecond thing is (if it be poſſible to be done without the endangering of a Kingdom or State) that there be but one Religion in a Kingdom or State.

The third is; that Kingdom or State that will live ſecure from Civil Wars muſt be provident to compaſs a rich publick Treaſure; that when a Kingdom or State come to be over-populous, they may be able to imploy their people in Plantations, or in a Foreign War. But the principal and able remedy againſt Civil War is to entertain a Foreign War. This chaſeth away idleneſs, ſetteth all on work; and particularly this giveth ſatisfaction to ambitious and ſtirring ſpirits; it baniſheth Luxury, maketh your people Warlike, and maintaineth you in ſuch reputation amongſt your Neighbours, that you are the Arbitrator of all their Differences. But this Maxim is not good to be obſerved except by ſuch Kingdoms, and States that are able to go

through with the designs they undertake. For as I find it necessary to Rich and Potent Kingdoms and States; so I find it hurtful to petty Kingdoms and States, because being too weak to gain by it, they will in the end but lose their Honours, and Moneys, and impoverish themselves, and increase their Enemies.

The fourth and last thing is, whereas the poorer and meaner people, that have no interest in the Common-weal, but the use of breath, these are always dangerous to the peace of a Kingdom, and having nothing to lose, willingly embrace all means of Innovation, in hope of gaining something by other mens ruine: there are these three means left for a State to ease it self of this sort of people, either to imploy them abroad in Plantations, or in a War, or to interess them in the quiet of the Common-weal by learning them such Trades and Occupations as may give them a taste of the sweetness of peace, and the benefit of a Civil life.

CHAP. XXIX.

Some Obſervations ſhewing how neceſſary it is for England, *or any other State, or Kingdom, providently to prepare a Rich Publick Treaſure before-hand, either for the Defence of themſelves, or offending their Enemies. And how neceſſary it is to Train up their people to Martial Affairs.*

LET us firſt conſider what danger a Country, Prince, or State is in, that is not ſo provident to provide a Rich Publick Treaſure before-hand, either for a Defenſive War, or an Offenſive War: For in the Wars you muſt upon all occaſions, have your hands in your Purſes: and having not a Rich Publick Treaſure before-hand, no Kingdom, or State, is able to make an Offenſive War, to gain Countries, or Honour, unleſs they be drawn into a Country by a Party. Nor is ſuch a Kingdom or State well able to defend it ſelf in a Defenſive War. For if an Enemy landeth in a Country, the obedience which at other times is willingly given to Princes, or States, is greatly weakned at ſuch times, and all neceſſary means to maintain a War, is hardly drawn from the Subject; and the common people will be eaſily drawn to change Maſters, when their oppreſſion ſhall be more frequent from their Friends, than

their Enemies: and ſuch great oppreſſions at ſuch a time upon the Commons (which of neceſſity there muſt be, when a Rich Treaſure is not providently provided before-hand) will prove very dangerous to any Kingdom or State in a Defenſive War. Therefore that Kingdom or State that will live ſecurely from an Enemy, muſt have a ſpecial care to provide a Rich Publick Treaſure before-hand againſt unuſual, and extraordinary caſualties, which are not to be removed but by ſpeedy and effectual Remedies. And no expedition can be made to avoid the dangers and ruine of a Kingdom or State, either in an Offenſive, or a Defenſive War, without a Rich Publick Treaſure provided before-hand. And it is an eaſie thing for Governours of a Kingdom or State to raiſe a Rich Publick Treaſure out of the extravagant Expences of the people, without giving any diſcontent at all; as having an Exciſe upon all the Beer, Ale, and Wine that is ſold in all Ale-houſes, and Taverns in a Kingdom or State, and likewiſe upon all the Tobacco that is brought into a Kingdom or State, and upon all kinds of Laces, Cards, and Dice.

Now to conclude, and ſpeak ſomething how neceſſary it is for a Kingdom, or State to train up their people to the uſe of Arms. Such Kingdoms where the men are trained up in Academies of vertuous actuality, do always keep their Honours at an high price, affording at all times men of abſolute and compleat carriage, both for deſignment and performance. I account a Rich Publick Treaſure providently provided before hand, and a people well trained

trained in Martial Affairs; to be two of the only Pillars (next under God) that will preſerve a Kingdom or State from ruine and danger.

CHAP. XXX.

That Reading, and Diſcourſe are requiſite to make a Souldier perfect in the Art Military, how great ſoever his knowledge may be, which long Experience and much practice of Arms hath gained.

MEN have two ways to come by Wiſdom, either by their own harms, or other mens miſcaſualties: And wiſe men are wont to ſay (not by chance, nor without reaſon) that he who will ſee what ſhall be, let him conſider what hath been: For all things in the world at all times have their very counterpane with the times of old.

But here I would have a prudent Souldier note, that it is a matter very dangerous to follow wholly the examples of another, if a man in general or in particular have not the ſame Reaſon, the ſame Wit, and the ſame Fortune. For albeit humane actions ſeem to be ſo joyned and coupled together, that that which now is preſent and hath been, ought to be again: yet notwithſtanding the accidents which are

are ſo different, and diverſe, that no man whoſoever he be (except very prudent) can always govern himſelf in matters preſent by the example of that which is paſt.

I take the Office of a Chief Commander to be a ſubject capable of the greateſt wiſdom that may be apprehended by natural means, being to manage a multitude of diſagreeing minds, as a fit inſtrument to execute a deſign of much conſequence, and great expectation, and to qualifie both their apprehenſions and affections according to the accidents which riſe in the courſe of his directions; beſides the true judgment which he ought to have of ſuch circumſtances as are moſt important to a fortunate end; wherein our providence cannot have enough either from learning or experience, to prevent diſadvantages, or to take hold of opportunities. And therefore that Souldier that is only trained up in the School of Practice, and taught his Rudiments under a few years experience, which ſerveth to interpret no other Author but it ſelf, nor can prove his Maxims but by his own Authority; my opinion is, his meer practical knowledge cannot make him a perfect Souldier, nor fit to be a General.

Experience joyned with Reading and Diſcourſe, do feaſt the mind with much variety, and choice of matter, or entertain it with novelties incident to expeditions, and uſe of Arms. And therefore it is not only Experience, and Practice which maketh a Souldier worthy of his name; but the knowledge of the manifold accidents which riſe from the variety of humane actions is beſt, and moſt ſpeedily learned by

by reading Hiſtory: For upon the variety of chances that you ſhall meet withal in Hiſtory, you meditate on the effects of other mens adventures, that their harms may be your warnings, and their happy proceedings your fortunate directions in the Art Military. Theſe examples which are taken from Hiſtory, are but a plain kind of principles, on which the mind worketh to her beſt advantage, and uſeth reaſon with ſuch dexterity, that of inequalities ſhe concludeth an equality, and of diſſimilitudes moſt ſweet reſemblances; and ſo ſhe worketh her own perfection by Diſcourſe, and in time groweth ſo abſolute in knowledge, that her ſufficiency needeth no further directions.

It is moſt requiſite likewiſe for a Commander to look into the diverſity of orders for imbattelling, and to weigh the nature thereof, that he may with knowledge apply them to the quality of any occaſion.

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by reading History; For upon the variety of chances that you shall meet withal in History, you meditate on the effects of other mens adventures, that their harms may be your warnings, and their happy proceedings your fortunate directions in the Art Military. These examples which are taken from History, are but a plain kind of principles, on which the mind worketh to her best advantage, and useth reason with such dexterity, that of inequalities she concludeth an equality, and of dissimilitudes most sweet resemblances; and so she worketh her own perfection by Discourse, and in time groweth so absolute in knowledge, that her sufficiency needeth no further directions.

It is most requisite likewise for a Commander to look into the diversity of orders for imbattelling, and to weigh the nature thereof, that he may with knowledge apply them to the quality of any occasion.

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